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THE UNIT MANNING SYSTEM FAMILY HEALTH STUDY

TECHNICAL REPORT

August 1988

by

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and

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INTRODUCTION

a) Background

The Unit Manning System Family Health Study was undertaken to achieve three primary aims: the first was to understand the impact of the military lifestyle on the quality of life of military wives; the second was to investigate the importance of social supports in alleviating military life stress, and also to investigate factors which promote the development of social supports. The third and most important goal was to determine how the needs and problems of the Army family, affect soldier morale, retention and readiness. Indeed, the military has been in the vanguard as well as the focus of much recent research directly related to the family's potential impact on job related variables (Grace & Steiner 1978; Sanders, 1985; Dickeson, 1968; Nieva et al. 1985; Stumpf, 1978; Orthner & Pittman, 1986; Pittman & Orthner, 1988). Particular attention directed at the military is the result of several factors, some peculiar to the military as an organization, others commonly found among other types of work organizations.

Segal (1986) points out an unusual pattern of demands that the military makes on its personnel and their families including risk of injury or death, geographic mobility, lengthy separations, foreign residence, as well as normative constraints. These demands and the strategies employed to ensure that they are met contribute to the "greedy" nature of the military organization (Segal, 1986). Coser (1974) has described

greedy institutions as ones that make total claims on their members, seeking exclusive and undivided loyalty. They also attempt to reduce the claims of competing roles and status positions and are characterized by the fact that they exercise pressure on component individuals to weaken their ties or not to form any ties with other institutions or persons that might make claims that conflict with their own demands.

Since World War II, the military has experienced a steady increase in the number of married soldiers, most notably within the enlisted ranks (Goldman, 1977). The initiation of the all-volunteer force has also contributed to a higher proportion of married service members. With this increase in the number of married personnel who are now subject to family demands the military has begun to view an understanding of the links between work and family as essential to its operation.

The changing demographic profile of military communities over the past two decades has also resulted in an increasing number of studies of subjective well-being and quality of life of military family members (Martin, 1983; Datel, 1978). The focus of these studies has generally been on the relationship to well-being of life domains in which military family members are frequently required to make certain sacrifices, for example, maintaining friendships, completing education, pursuing careers, and dealing with the added financial burdens of frequent relocations and setting up new households. Unit and leadership issues have received less attention as life domains worth studying because they are thought of as being relevant only to

soldiers, although they have the potential for significantly affecting spouses' well being. Studies of quality of life have generally had a strongly applied focus in that they are aimed at obtaining data that can be used by community and health planners for enhancing life satisfaction among members of a particular group. Where military family members are concerned, such interventions have the added potential for increasing rates of retention, since satisfied families are more likely to encourage and support the soldier in continuing with a military career. Plans for enhancing family well-being could include expensive projects such as increased on-post housing, as well as relatively low cost techniques such as family sponsorship, information dissemination, and scheduling a certain amount of family time for soldiers.

One such type of intervention which deserves separate treatment as an area of research is the promotion of social support. The importance of the development of interpersonal attachments or social bonding has been emphasized by behavioral and social scientists with regard to positive outcomes in human psychological development (Bowlby, 1971), the physical and emotional health of the individual (Cassel, 1976; Cobb, 1976), and the functioning of the group or society (Fortes 1969). Early sociologists Cooley (1909) and Meade (1934) proposed that self-evaluations and social identities - both important aspects of psychological well being - originate in social interaction, while Durkheim (1951) proposed that belonging to a socially cohesive group promotes a sense of certainty and purpose in living, and

protects the individual against anomie, or a sense of social isolation which in extreme cases can lead to suicide.

The ideas of these early social scientists have become relevant in the last two decades to epidemiologists interested in risk factors and protective environmental factors in the disease process (Bloom, 1965; Cassel, 1974; Sanford, 1972). These interests promoted research on social support, and have led to the development of two theories regarding the mechanisms whereby supportive bonds promote health and well being. One theory proposes that support has a beneficial effect regardless of whether circumstances are stressful or not, and probably operates through the enhancement of self esteem, while another theory postulates that support is related to well being primarily for persons under stress, in that it buffers the individual from the harmful influence of the stressful event. Cohen and Wills (1985) suggest that both conceptualizations are correct, and address the different processes through which support may affect well being. A direct effect is found in studies which measure degree of integration into a large social network, whereas a buffering effect is found in studies which examine the presence of social resources in relation to the coping requirement elicited by a particular stressor.

An extreme instance in which social support has been shown to buffer stress is in combat. Marlowe (1987) has noted that numerous studies going back to World War II have identified the same factors that both protect the soldier from psychiatric breakdown, and the military unit from performance breakdown.

These include the cohesion of the unit, the morale of its members, the degree to which soldiers are bonded by ties of confidence to their leaders and to each other, their perception of mastery over their equipment and their environment, and their confidence in their combat skills. Marlowe also points out that non-cohesive units may have the basic technical requirements for combat, but are extremely fragile in the face of severe stress - a problem which affected a number of American units in the final phases of American ground involvement in Viet Nam.

One critical aspect of the investigation of social support in the present study is the evaluation of a program which has been designed to promote stress-buffering supportive social relationships in military units and communities. This program, referred to as the Unit Manning System, is designed to keep soldiers and their leaders together for long periods of time in order to facilitate the development of bonds believed necessary to mediate the negative impact of combat stress. The system is also designed to benefit military families in that it minimizes the social disruption of relocation by deploying total units rather than individuals. This allows both soldiers and their wives to retain supportive relationships that they may have formed among others within the unit. In addition to maintaining the intactness of the groups over time, the Unit Manning System promotes the establishment of support groups for family members, thus encouraging wives to reach out to one another and develop supportive bonds.

The implementation of the Unit Manning System which began in the early 1980's, is based on the principle of "COHORT" - an acronym for Cohesion, Operational Readiness and Training. First term enlisted COHORT soldiers train together and remain together for the duration of their initial enlistment period of three years, which in some cases includes group deployment overseas. By contrast, in traditional or non-COHORT Army units, soldiers are assigned as individuals, and although in general they would remain with their units for a three year period, there is a great deal of personnel turnover within these units during that time. Non-COHORT soldiers are therefore not with the same group of people throughout their period of enlistment. The present study is longitudinal, and involves a comparison over time of military families participating in the Unit Manning System program with those still subjected to the traditional method of assignment and deployment.

b) Data Collection

Between November 1985 and January 1986 approximately 3000 introductory letters were mailed to wives of all married soldiers in 12 battalions participating in the Unit Manning System Field Evaluation (Marlowe et al., 1987). These included eight COHORT battalions and four non-COHORT battalions. Four of the COHORT battalions were scheduled to rotate OCONUS several months after the initial evaluation, while the other four were scheduled to remain at one post location throughout the two and a half year

period of the study. Military wives who received our letter and who wished to participate in the study mailed back to us postage pre-paid business cards with their names and addresses. A total of 1341 wives agreed to participate in the study, which constitutes about 40% of those whom we reached. Questionnaires were mailed to this latter group. A total of 945 subjects returned completed questionnaires. This was 72% of those who had agreed to participate, and approximately 33% of those whom we initially reached. The same groups were surveyed one year later (January 1986) and at that time an additional COHORT battalion was added to the study. At Time 2, wives in the four rotating COHORT battalions were surveyed at their OCONUS locations. Wives from the additional COHORT battalion which had rotated from OCONUS to CONUS, were surveyed at their new CONUS location. The overall response rate at Time 2 was 40% (N=1148).

Of those who participated at Time 1, 50% participated again at Time 2. We therefore have measures at two points in time for 476 military wives. Despite the low overall response rate, we believe that we can generalize with caution to similar populations of military wives based on similarities in sociodemographic and attitudinal characteristics between our sample and that of Martin (1986) who obtained a 87% response rate in a study on military wives who were paid for their participation. In both studies, it seems, however, that black wives may be underrepresented.

c) The Subjects

The subjects in this study were all wives of combat arms soldiers in infantry, armor, artillery and airborne battalions. A comparison of sociodemographic characteristics of the survey respondents at Time 1 and Time 2 are presented in Table 1. As can be seen, these characteristics are very similar at both points in time, with most small differences explained, at least in part, by the passage of time.

The Matched Sample

Those subjects participating at both Time 1 and Time 2, closely resembled the larger samples from which they came, with the mean age of the matched group being 28.5 (+-6). In the matched sample there was a slight increase in the proportion of officer's wives (21%) and a corresponding reduction in the proportion of junior enlisted wives (21%). The proportion of NCO wives held constant (58%). Subjects in the matched sample were also slightly better educated than those in the larger samples at Time 1 and 2. Only 10% of subjects in the matched sample had not finished high school and 55% had some education beyond high school. Those in the matched sample at Time 2 were also somewhat more likely to be full or part time employed (46%) with fewer seeking work (20%) and the same percentage of homemakers (35%). The matched sample also had a higher percentage who were white (79%) and consequently blacks (10%) and other minorities (11%) are further underrepresented.

d) The Instrument

Overview

1) Time 1

The questionnaire at Time 1 included a detailed demographic background section, and sections dealing with quality of life and social supports as well as scales measuring general well being, premenstrual symptoms, psychological sense of community, marital satisfaction, physical health and sex role attitudes.

2) Time 2

At Time 2, three personality scales were added to the questionnaire and the scales measuring psychological sense of community and sex role attitudes were removed. In addition, the section on social supports was expanded. A separate symptom checklist was also included that was intended to assess the incidence of developmental, academic and emotional problems in children of families participating in the study.

A more detailed account of particular measures relevant to this report are provided in each section dealing with specific areas of data analysis.

e) Data Analyses and Findings from the Survey

In the following pages we shall deal with three main areas of data analysis: 1) quality of life; 2) social supports; and 3) family influences on readiness and retention. Within each area we will include a description of the specific measures used

for the analyses, the analyses themselves, and a brief description of the results.

f) Comments From the Survey

Approximately 51% of all subjects who completed survey questionnaires also took advantage of a blank sheet at the back to write voluntary comments. These comments ranged from a single phrase or sentence stating approval/disapproval of the Army or the survey to lengthy accounts of specific problems, using several extra sheets of paper.

In each section that follows, the description of our quantitative findings will be followed by relevant anecdotal descriptive accounts taken from these unsolicited comments. While commenters should in no way be thought of as representative of the entire sample, the stories they tell and the feelings they express may assist the reader in understanding the human aspect of the statistical findings. Further, they accurately reflect findings in other interview studies in which such data were systematically collected.

II. QUALITY OF LIFE

a) Measures

i) Quality of Life (Time 1)

Forty four Likert-type items formed the basis for measuring quality of life. Eleven items pertaining to general (non-military) aspects of life were obtained from Campbell et al.'s (1976) study. Fourteen items were derived from Martin's (1983) study of military wives, and pertain to specific aspects of military life believed to be stressful to military wives, including relocation, separation from husband, concerns about the dangers of combat, leaving friends and family, and finding jobs. The remaining 19 items were derived from a military life satisfaction scale developed by Datel (1978) which was originally designed for active duty military members. Some of these items were slightly reworded to make them applicable to spouses.

For the 19 items obtained from Datel's study, and the 11 items obtained from Campbell's study, respondents were asked to rate degrees of satisfaction/dissatisfaction on a 5 point scale, in which 5 represented extreme satisfaction. For the 14 items from Martin's study, respondents were asked to what degree the specific issue constituted a problem to them. There were 5 choices ranging from (1) "no problem at all" to (5) "very severe problem".

ii) General Well Being (Times 1 and 2)

General Well Being was measured on a summative scale developed by Dupuy (1978) and validated on a national sample of 6913 American adults aged 25-75 in the Health and Nutrition Examination Survey (HANES) conducted by the National Center for Health Statistics (1979). Subjects were asked to rate themselves over the past month in the areas of depression, anxiety, emotional and behavioral control, energy level, somatic complaints and intrinsic life satisfaction. This scale, unlike many other general well being scales, was intended for clinical use, and was indeed found to be successful in distinguishing psychiatric clinic users from non users (Veit et al., 1983). Cronbach's alpha for the scale in this study was .93.

iii) Global Life Satisfaction (GLS) (Time 1)

Global Life satisfaction (GLS) was measured by a single item in which subjects were asked to rate their satisfaction with life as a whole on a 5 point Likert type scale.

iv) Role Satisfaction and Employment-Related Variables

(Time 2)

Role satisfaction was based on responses to the question: "How satisfied are you with your daily occupation? This includes being a homemaker." Responses on a five-point Likert scale ranged from "very satisfied" (5) to "very dissatisfied" (1). Employment related constructs included (1) employment status (full-time employed, part-time employed, unemployed seeking work,

and unemployed not seeking work; (2) job availability (finding a good job); (3) job continuity (giving up a good job for those in the work force); (4) overall evaluation of career development prospects); (5) day care availability for those with young children. Response choices for the last four questions were measured on a 5-point Likert scale ranging from "very severe problem" (5) to "no problem at all" (1).

iv) Marital Satisfaction (Times 1 and 2)

Martin (1986) constructed a marital distress scale based on 21 items from the 48 item marital satisfaction scale developed by Roach, Frazier & Bowden (1983). The selection was based on highest overall whole-score correlations obtained in a sample of 600 Army wives. These items were further factor analyzed, and 11 items which had a factor loading of .5 or higher on the main factor, were selected for inclusion in our final scale.

Cronbach's alpha for this scale in our present sample was .88.

v) Financial Satisfaction (Time 2)

The three items which loaded on the financial factor at Time 1 were summed at Time 2 to form a financial satisfaction scale. These items were: satisfaction with standard of living, family income, and ability to make ends meet. Cronbach's alpha for this scale at Time 2 was .82. (See Factor Analysis below).

b) Findings from the Survey Data

i) Factor Analyses

A factor analysis was performed on the responses to the 44 quality of life questions using the principal components method and varimax rotation. Factor scores were then generated, and multiple regressions were performed in which factor scores were regressed on GWB and GLS, controlling for age, education, and husbands' rank. Separate factor analyses and regressions were also performed for each of the three main rank categories - junior enlisted (E1-E4) wives, NCO (E5-E9) wives and officer (O1-O5) wives, based on recent studies suggesting that these groups may comprise distinct populations (Martin, 1986; Martin & Ickovics, 1987).

The purpose of the factor analysis was to summarize or reduce the 44 items to meaningful sub-groups or domains which could then be correlated with GWB and GLS. No prior assumptions were made regarding the relative importance of the various factors in terms of the amount of variance that each explained within the factor matrix. Since 75% of the items concerned aspects of military life, it is not surprising that most of the variance in the factor pattern is explained by factors pertaining to military life. A total of ten factors with eigenvalues greater than 1 emerged from this analysis. These comprised the following content areas:

- 1) husband's job; 2) military life stress; 3) financial matters;
- 4) general Army life; 5) community; 6) spouse employment;

7) intimate relationships and personal health; 8) education; 9) friendship; and 10) military health care (See Table 2).

Separate factor analyses for each of the three rank groups yielded similar factor patterns with some differences between groups in item loadings on the various factors. For example, post medical care comprised a separate factor for officers' wives, while being associated with general Army life for junior enlisted wives, and an 'institutional support' factor for NCO wives which included being respected by the Army. Among officers' wives, standard of living and income were part of the general Army life domain, while for enlisted wives these items loaded on the financial domain. For NCO wives, having sufficient education was also part of the financial domain. Another important difference was that for junior enlisted wives, military life stress comprised two factors - one related to stresses of husband's job, and the other related to the disruptions of other close relationships such as friendships. For junior enlisted and officers' wives, marriage and family life comprised a separate factor from health and friendship, while for NCO wives, marriage, family life and health comprised one factor, and friendship another. A further notable difference was that attitude to the Army as a career, and feelings about family life in the Army were associated with husband's job for junior enlisted wives, with military life stress for officers' wives, and with general Army life for NCO wives.

ii) Multiple Regressions

A multiple regression of factor scores on GWB controlling for age, education and husband's rank yielded an R² of .388, with the largest portion of the variance explained by intimate relationships and health, followed by friendship, military life stress, community, financial matters, husband's job and health care (See Table 3)

A regression of the same variables on GLS yielded an R² of .39. Again, the largest portion of the variance was explained by intimate relationships and health with smaller but significant amounts explained by financial matters, friendship, husband's job, community, general Army life and spouse employment (See Table 3).

Separate regressions of factor scores within rank categories revealed differences in the relative importance of certain domains for specific groups. Of note is the fact that, military life stress accounted for the second largest portion of the variance in GWB and husband's job accounted for the largest portion in GLS for junior enlisted wives, while the financial factor accounted for the second largest portion of variance both in GWB and GLS for NCO wives. Also spouse employment explained only a small though significant portion of the variance in GLS for NCO wives.

Our findings are consistent with those of several other studies which have found that satisfaction with the domains of marriage, family life, health, and the financial or material aspects of life explain a large share of the variance in general

well being (Andrews & Withey, 1976; Campbell et al., 1976; Shin & Johnson, 1978; Rhoads & Raymond, 1981; Shichman & Cooper, 1984). Of specific interest to the present report however, are factors related to aspects of military life. Five percent of the variance of both GWB and GLS is explained by factors directly related to the Army - namely - military life stress, husband's job and general Army life. Of these factors, military life stress and husband's job may be regarded as mission related, in the sense that they will vary depending on what kind of work the soldier does. It is particularly noteworthy that military life stress is significantly associated with GWB but not with GLS. On the other hand, satisfaction with general Army life has no significant relationship to GWB but accounts for 2.5% of the variance in GLS. This finding has both theoretical and practical significance. We may argue, theoretically, that subjects may not be fully conscious of how certain domains impact upon their mental health defined as the complex combination of feeling states measured by the GWB scale. On the other hand, in appraising GLS, subjects may clearly have conscious priorities which they take into account and which may be relevant with regard to planning the allocation of resources.

Besides the domains which are directly related to the mission or the Army, there are others which are strongly influenced by the Army such as financial well being, community, and health care. Even variables such as marital satisfaction and family life may be indirectly influenced by the Army.

iii) Path Analysis

Using our Time 2 data, we sought to demonstrate the direct and indirect effects of employment and employment-related variables on psychological well-being through their impact on role satisfaction. It was hypothesized that the following work-related variables would have a primarily indirect effect on well-being as mediated via role satisfaction: the actual proportion of time spent employed (none, part or full); role fit (see definition below); the overall evaluation of career development prospects; job availability; job continuity; and, the availability of suitable day care for young children.

To test these hypotheses, a path model was constructed: role satisfaction and satisfaction with marriage and financial state were presumed to precede general well-being. Employment-related characteristics (e.g., availability of child care, role fit etc.) were presumed to precede role satisfaction. The effects of marital satisfaction and financial satisfaction were also included in these analyses.

The study distinguished between the actual amount of time the subject was employed outside of the home and role fit, defined as the respondent's own definition of her work status based on whether or not she wished to be employed (Townsend and Gurin 1981). Using a method known as orthogonal coding (Kerlinger & Pedhauzer 1973), two variables were created to measure employment status. For the first variable, time spent employed outside the home, all those who were not employed were grouped together regardless of whether or not they claimed to be

seeking work. For the second variable, role fit, the unemployed seeking work and the unemployed not seeking work were distinguished. Thus the first variable comprised 3 categories - full-time employed, part time employed, and not employed; the second variable also comprised 3 categories - employed, unemployed seeking work, and unemployed not seeking work.

Role satisfaction was the dependent variable in the first regression model, which provided standardized beta weights used in the calculation of the indirect effects of the employment variables on well-being. Psychological well-being (GWB) was the dependent variable in the second regression model, from which the direct effects of all study variables were estimated. The effects of age, education, and ethnic group were controlled in both models.

The following work-related constructs were used as independent variables in both regression models: satisfaction with career development, job availability, job continuity, the proportion of time spent employed, role fit and the availability of child care. In the first regression model role satisfaction served as the dependent variable. Marital satisfaction and financial satisfaction were included as control variables.

In the second regression model where general well-being was the dependent variable, the direct effects of marital and financial satisfaction as well as role satisfaction were included in the model. Marital and financial satisfaction were examined in an earlier study of military wives (See above), and together they were found to explain a large proportion of the variance in

GWB. Their inclusion was deemed necessary in order to control for any influence of role satisfaction on GWB that may be accounted for by these variables. The effects of marital and financial satisfaction were thus included in the first regression model as control variables because the temporal ordering could not be established with certainty.

The parameter estimates, in the form of standardized beta weights, have been reported in Figure 1. Three variables in the first model had a significant impact on role satisfaction. Career development prospects had the largest impact followed by role fit, and job availability, with a trend towards significance for job continuity. The R-square for the first regression model was .27. Examining direct effects of the employment variables on GWB, only availability of day care was found to have a significant ($P < .05$) direct effect on GWB. However, career development prospects and proportion of time spent employed showed a trend ($P < .10$) towards significance. Marital satisfaction had the largest impact on GWB; financial satisfaction and role satisfaction were also significant. The R-square for the second regression model was .32. Post hoc ANOVAs with Duncan comparisons indicated that employed persons and homemakers had significantly higher psychological well-being than the unemployed seeking work. Homemakers, in addition, had significantly higher role satisfaction than employed persons, who, in turn, had significantly higher role satisfaction than the unemployed seeking work. Full time employed persons had significantly higher role satisfaction than part-time employed

and non-employed persons. However, while full time employed persons had slightly higher scores on psychological well being than part-time employed and non-employed persons, this did not reach statistical significance.

c) Conclusions Relevant to the Army

- 1) Several domains of military life have a significant impact on the general well being and life satisfaction of military wives. These include: military life stress, satisfaction with husbands' unit, and satisfaction with army life in general.
- 2) Domains indirectly related to military life that have an impact on quality of life include satisfaction with community and financial satisfaction.
- 3) Employment-related variables have an impact on general well being indirectly through role satisfaction.
- 4) Military wives who define themselves as homemakers not seeking work are satisfied with their role and have high general well being.
- 5) The overall evaluation of career development prospects for those wives who seek careers has a significant impact on general well being and is more important than actual employment status.

d) Wives' Comments Relating to Quality of Life

i) Marriage and Family Life

Level of dissatisfaction with the kind of family life one can have in the Army was similar across rank groups. According to those who chose to write comments Army-related stresses took their toll on the family in several ways. Insufficient time spent with the family forced wives with children to play two roles. Comment-writers expressed anger and frustration at having to be both mother and father--"and not get paid for it!" One bitter wife stated: "I never wanted to become a single mother and I didn't marry to be alone." Some observed the emotional stress, noting their children were lonely and worried about their fathers. "The frequency and the irregularity of field duty seems to rob our family of the continuity our son needs," added another mother.

Wives felt that the soldiers also suffered. "Husbands do miss an awful lot of milestones in their children's lives" was a common regret. The following comment highlights the conflict that many soldiers face in meeting both their military and parental demands:

"The Army in general gives you what you need (a house, paid medical) but in between the lines is what most people will give up ten years of service for -- never being home for the firsts in your child's life -- having your four year old daughter ask for an 'all the time daddy' for Christmas."

Soldiers were unavailable not only physically but emotionally. Even when they did get time, "they're too tired to do anything."

The quality of the marriage also seems to suffer for many. Wives felt the Army was not conducive to a strong family and it was felt that military attitudes had considerable impact on marital stability. "I can foresee lots of families falling apart if some attitudes toward the men and their families don't change." Marital problems and the perceived high divorce rates in the Army were also viewed to be a result of the long hours and separation, financial stress and frequent moves. "I'm sure the long hours and little pay have a lot to do with all the divorces." "I have seen several marriages end due to the stress of not enough money and the long working hours seven days a week. The stress is sometimes more than we can bear."

Wives wanted to see their husbands more often and share more quality time with them. They felt it was important to spend time together as a family. The anxiety of those living far from family and friends was further compounded. Some wives noted not only the impact of scheduling on their families but the emotional carryover as well: "I feel that military life has caused most of our marital problems. My husband is under so much pressure from his superiors. Depending on what happens at work causes his mood swings at home". Several wives expressly blamed the Army and its policies for marital breakup. Even wives who noted that it was possible to maintain a good marriage within the military and that military life could even draw some couples closer, admitted

sustaining a marriage within an Army setting was very difficult.

The majority of comment writers felt like this woman: "Army life is well suited for single individuals but is detrimental to any marriage. And if anyone was to tell me different I would laugh in their face." Many spouses observed that newlywed couples were especially vulnerable. "If couples didn't have a good marriage to begin with, it couldn't survive the Army."

ii) Financial Well Being

A topic of great concern to many comment-writers was their financial and material well being which included the issues of salary and benefits. There were two main complaints. First, the pay was simply not enough. Spouses related their precarious financial positions, reported running out of money before the end of the month, living "paycheck to paycheck" and having little or no savings. Financial distress put pressure on the family's ability to stay together, keep in touch with friends and relatives and sustain healthy marital ties. "You should have asked for our monthly budget and income. That's stress!" Enlisted and first-term wives were especially anxious. Families waiting for on-post facilities faced even tighter budgets. Finally, the high cost of living at some posts exacerbated the problem.

Second, even when the salary was considered adequate, it was considered unfair since it didn't account for overtime, or the difficulty or danger on the job. It was impossible, however, to

distinguish how many of these families experienced financial problems prior to joining the Army as compared with their experiences after joining the Army.

One particular financial issue which was mentioned repeatedly, indicated a problem with information dissemination. Wives complained that separate rations were deducted from the soldier's paycheck in one lump sum at the end of the month when bills were due, thus leading to a budget crisis. Since many wives appear to be inadequately informed on the matter of separate rations, they are not able to take the necessary steps to plan ahead and budget appropriately.

The importance of job security was noted by several comment-writers. One woman, however, questioned its worth: "After the arrival of our first baby, we're not going to be able to stay together for financial reasons...and all this for job security." Most wives, however, found job security greatly alleviated the stress of military life. In addition, several wives were satisfied with the benefits, especially retirement. Those wives who were dissatisfied, were angry that Congress had cut benefits and were threatening to do so again.

iii) Friendships

Maintaining friendships was mentioned by relatively few comment-writers and wives were divided in their views. While some women felt Army life did not hinder continuing friendships, others felt differently. Women were also divided about making new friends. Some said it was easy to make new friends upon

relocation. In fact, one woman pointed out that the only thing she'd miss about the Army was meeting people. Other women disagreed. One woman's story is especially poignant:

"The hardest thing for me is not having a lifetime friend all the time. My husband...makes friends on the job. My children go to school and make friends. I then have to set up an apartment all over again and I don't know anyone. There is no one other than my husband and children to talk to. If you get close to girls...it hurts too much when you have to say goodbye. When we settle down...I could let my guard down and make lifetime friends without the fear of having to move away again."

iv) Housing and Community

Regarding post location, most wives specified dissatisfaction with geographic location as the most frequent problem, followed by distance from friends and family and the high cost of living. Many preferred to be closer to a city to improve employment potential or mitigate isolation. Those who enjoyed the area discussed the friendly community or proximity to family members. Being far from home made adjustment to Army life more difficult. Several spoke of the cost of traveling home or keeping in touch by telephone. Those close to home appeared much happier. As before, the high cost of living at certain post locations aggravated what wives considered to be an insufficient income.

Most comment writers who mentioned housing indicated that they were dissatisfied and only a few individuals indicated positive attitudes. Dissatisfaction stemmed mainly from insufficient on-post housing and long waiting lists. Wives of all rank found this especially unfair to E1-E4 families who are just starting out.

The other major source of dissatisfaction was their assessment of the cost of off-posting housing. In their view the high cost aggravated the housing problem by straining the family budget. Again, financial burdens were viewed as the heaviest for lower enlisted families waiting to live on-post. "Off-post housing," added a few wives, "is hard to find and housing referral provided little help." The quality of the available housing was a problem cited by some women. Their concerns included faulty heating and cooling systems and cockroaches.

Other community services also elicited comments. Those women who discussed day care reported that day care facilities were inadequate, and that off-post mothers can't use on-post child care. This latter perception is, in fact, incorrect, suggesting that part of the problem is the result of faulty information dissemination. In addition one wife noted:

"The child care program doesn't stay open during evening hours when soldiers or spouses need them. It becomes increasingly hard for me to go to work when I'm worried about how my children are being cared for."

Conflicting opinions by a few women touched on their children's education. Some contended that schools should be run

by DoD to ensure greater sensitivity to military lifestyles.

Others countered that civilian schools provided a better education.

When weighing overall satisfaction with these community services, women were divided in their opinions. Some wives felt the services were "unbeatable," run by "caring people who can help you with any problem you may have" and "make being in the Army worthwhile"; others complained that agency workers were rude and uncooperative, and that the hardships of Army life weren't compensated by free services since:

"Services are not reliable to the family, are little to no help when a dependent needs them, and provide more stress on the families when our husbands are away by refusing to help or to simply listen."

v) Leadership

To wives who chose to write comments about leadership, caring and job satisfaction are the main determinants of unit morale. Yet low morale among soldiers was mentioned more often than high morale. Several wives cited marriages that broke up, one suicide and several attempted suicides. One wife observed that "All the guys I know can't wait for their time to be up - not many are content with their life in the military." She concluded: "In the service I believe there are only two ways to get rid of stress - commit suicide or get out."

Wives' perceptions of how their husbands were treated by unit leaders was commented upon frequently. Comment-writers were

ambiguous about the source of this problem. They usually referred to "leaders," "superiors", "NCOs", "lieutenants" or "battalion commanders". Less frequently, they used terms like the "military" or "Army".

Lack of concern for the individual soldier was associated with leaders' failure to encourage their soldiers on the job and with a lack of effort to secure promotions, heavy job demands and a general lack of consideration for the soldier's welfare. This lack of concern was exemplified by the wife whose husband's commander rarely came to visit after her husband had major surgery. And in this anecdote from another wife:

"My friend's father had a heart attack. Her husband was in the field (he drives a jeep for a Lt.). When the wife's husband told his Lt. the problem and that they needed to go home on emergency relief, the Lt. said 'Who's going to drive me around?' He did not even say he was sorry about what happened or if he could help."

How their husbands are treated appears to be important to wives. Their concern can be seen in their comments about soldiers being poorly fed when out in the field or their husbands not getting a break after an arduous field exercise.

Fairness and competence among leaders were also important considerations for military spouses. The quality of leadership was a significant factor in determining acceptable levels of support for military families. Several women detected racism. One wife in a biracial marriage said that she experienced

prejudice in her daily activities and career decisions. Surprisingly, over half of these types of complaints referred to reverse discrimination or "anti-white" sentiment. Minorities, it must be remembered, are underrepresented in this sample.

Poor leaders were defined as incompetent, out of date, lacking flexibility or common sense, caring only for themselves and their careers, and showing little appreciation for the soldiers' efforts. Weak leadership was also cited when wives perceived that their husbands were being treated unfairly or when there was favoritism. This contributed to negative attitudes towards the Army as a whole.

Wives also interpreted lack of concern for the soldier as a lack of concern for military family members. Heavy schedules and the inability to move up means less time with the family and, barring a higher income, a lower standard of living. Many of the wives who wrote comments seemed to feel an almost personal lack of consideration for wives and children by unit leaders. The tone and "policies" set by leaders also demonstrated this failure of support. Wives perceived an "Army first" attitude by leaders in their husband's unit that neglects the importance of dependents and results in their being treated as non-entities. "The Army does not care about dependents because we are not in the military. They do not recognize us."

Disrespect toward wives by unit leaders was also specifically mentioned. Several wives quoted unit leaders as saying that if the Army wanted the soldier to have a wife, they would have issued him one. This attitude towards families

intensified during soldiers' absences. Spouses felt particularly hurt at the fact that they are required to move off post when the soldier goes on an unaccompanied overseas tour. One spouse was worried about her husband's battalion commander who "pushed work and basically said forget family." Unfortunately, most of these wives would agree with this woman: "The Army doesn't care what happens to myself, my husband and our son."

Many of the women who sent comments said that they feel that they cannot count on their husband's chain of command for help. One wife observed that most wives wouldn't know where to go or what to do in an emergency when their husbands were away. Some who did seek help felt they were treated poorly or were told their problems could only be handled by their husbands. Again, experienced military wives expressed concern that young couples were especially vulnerable.

Thus, the inability to get help and even access to services such as on-post housing, the inability to reach their husbands in the field or be with their spouse during important moments in addition to what they perceived to be low pay all indicate to wives a lack of Army support for families and soldiers. These attitudes and policies suggest to military wives that the Army does not care about their welfare. "I'm always hearing how the Army is for the family. I don't see how with all the long hours." It appears that women are getting a mixed message from the conflict between rhetorical concern for the family and Army policy: "I don't understand why the Army says they want to help out family life when it's them that destroy it."

Sexist attitudes on the part of the units were also mentioned:

"I have yet to hear anyone mention support for the spouse, the spouse's career or problems...Demands are made on the married soldiers because spouses are expected to do all these things. It doesn't matter if the spouse also works all day. When a married man joins the Army, the wife 'joins' too. When the soldier is a woman, her spouse (a man) is not 'required' to be involved in these functions. "

Several wives recognized this double standard. These attitudes and unequal expectations made it harder for working women to juggle a career, household and marriage and for mothers a household, children and marriage.

Disorganization within the unit was another area of concern ascribed to poor leadership. This perception was linked to information dissemination and work policies. Units were perceived to be disorganized because they were "...always saying one thing, doing something else and in general keeping the wives pretty confused about field time, duty hours, time off, etc." Inflexible time off policies, having to work late and doing menial chores or no chores during the work day was seen as inefficiency on the part of the units.

vi) Military Life Stress

The hardships of separation due to exercises like REFORGER, field duty or unaccompanied overseas tours were described by a

large number spouses. Their comments about these experiences were filled with statements about loneliness, anxiety and depression. During these separations, most wives describe themselves as solely responsible for maintaining the household, caring for children and resolving family problems. Many wives noted that their answers reflected unusually high levels of stress due to their husband's absence and the family burden that they carried.

There were, however, some positive comments about separations. A number of wives said that separations provided an opportunity to develop greater independence. One wife summed up her feelings this way: "I can credit the Army for teaching me how to be more self-confident since I am often out in situations that I can't rely on my husband since he is often gone." A few women even thought that periodic separations give couples a healthy break from each other.

Another area of great concern to wives is the time their husbands spent on the job. A large number of women complained about their husbands long duty hours and excessive field training. They described the long hours as "the pits," precluding "a healthy home life." Most wives who discerned problems with their own or other military families pinpointed long hours as the cause. "My marriage has been on the rocks since my husband started working 12 hours a day and weekends also."

Women were split over relocation issues. Some wives weren't bothered by moving. They had adjusted and enjoyed seeing new

places and meeting new people. One woman was disappointed that they hadn't moved enough. Another noted that moving around drew their family together since they had to rely on each other. Some felt relocation was one of the benefits Army life had to offer. Yet the same number found it stressful and worried about issues like selling the house or transporting furniture. A few women felt it disrupted their children's education and friendships. Others were dissatisfied with the cost of moving and setting up a new household.

vii) Spouse Employment

A number of comment-writers cited the disruption of work and finding new jobs upon relocation as problems. A few said that they stayed behind when their husbands' unit rotated to Germany in order to keep their jobs or advance in their career, placing greater stress on the marriage. Other wives opted to follow their husbands and give up work. One such wife reflected: "For a couple with no children, a wife's career is the most important part of her life. It's a sad part of military life that a wife has to sacrifice a career that could have been something else had her husband not joined the service." As previously mentioned, women also found it difficult to pursue a career due to the pressures of participating in their husbands' careers. The comments of a soon-to-be battalion commander's wife reflected concern that her new responsibilities would prevent her from completing her education.

A few women encountered discrimination against the military while job hunting. One woman was told: "You can come in and interview for the job but I'll tell you right now I won't hire you because you're military." Bases located far from a big city also narrowed employment opportunities. Job placement, was described as "a joke" and help from the unit as virtually nonexistent. Even when women find jobs they may have to take pay cuts or may experience underemployment. One spouse found work "but not in anything close to what I consider my career choice." Women cannot always continue in their field, build up experience or improve their seniority which might otherwise ensure a sufficient income or challenging job.

viii) Health Care

Health care is seen as an important military benefit, yet, of those wives who wrote comments on medical services, the overwhelming majority expressed dissatisfaction. Comment-writers gave various reasons for their dissatisfaction. For example, many encountered trouble making appointments, as illustrated by, one wife who wrote: "The only way to get an appointment is to call on the 14th of the month between 5 and 6 pm. Ten thousand other women are trying to get the same appointment."

Getting an appointment seems to be especially problematic for working women. They noted that appointments are often given for the same day which makes it difficult to get time off from work, find a baby sitter and/or make transportation arrangements. Even with appointments, wives complained of long

waiting periods. This included long waits in the emergency room. One wife even reported that she called the emergency room and was put on hold before anyone found out what was wrong.

The most frequent specific complaint about medical care was the way patients are treated by hospital staff members. Typical comments referred to "uncaring," "condescending," and "incompetent" staff. Many wives felt that they were treated impersonally as if they were "nobodies," "not human." The quality of care was also described as "incomplete," "rushed" and "substandard." A common feeling was that medical staff members didn't take enough time to examine them or explain everything. "I always worry if they did their job right," wrote one spouse. Another commented that "I know for a fact several children who have died in this hospital for poor care. I know, because my youngest daughter was almost one of them." One wife, also a registered nurse, felt the quality of service was substandard compared to civilian medical care.

Some wives reacted to these concerns by attempting to handle health problems themselves or using a military medical facility only in an emergency, and a few said that they would go see a civilian physician for their medical care. For important medical treatment, they would not feel comfortable at a military hospital. One woman said that she drove home a month before her child was born in order to give birth in a civilian hospital.

A small number of wives commenting on medical services did indicate satisfaction with military medical care. One representative of this group insisted she wouldn't go anywhere

but a military facility: "I don't think I could've gotten better care in a civilian hospital, no how, no way." But such positive comments, however, were the exception.

The experiences reported by the women commenting on medical services suggests that the benefits of free military medical care may simply outweigh their perceptions of poor quality, poor attitudes on the part of the staff, and often inaccessible services.

xi) General Army Life

Given all of these complaints, it is surprising to observe the overall level of satisfaction with military life among these survey respondents. After weighing the advantages and disadvantages, most comment-writers concluded they were satisfied with their military lifestyle and were proud to be a part of it. These wives were proud to be able to overcome the hardships posed by military life. They consider themselves "the backbone of the Army," with the toughest job in the Army: Keeping their husbands intact in order to be effective soldiers and taking on all the responsibilities demanded by running a household. Several spouses found it "rewarding" and a "quality way of life" and were eager to raise their children in the Army. "It was during our years as civilians that my family found living day to day terribly stressful." Yet many who expressed general satisfaction prefaced their comments by conceding that Army life was very difficult and took a lot of adjustment. Even wives who expressed overall satisfaction were not totally enthusiastic.

They considered Army life "not bad" or merely "okay." However, while many spouses expressed serious reservations about particular aspects of military life, they did not regret the decision to live in a military setting and were basically satisfied with the Army way of life. Only a small proportion of comment-writers, wrote that the costs outweighed the benefits. Finally, several comments suggested that adjustment to military life may be easier for women who have grown up in the Army, or who had been on active duty themselves.

III. SOCIAL SUPPORTS

a) Measures

i) Social Supports (Time 1)

Four questions were asked regarding relationships with other military wives:

- a) Are you friendly with another military wife in your husband's unit?
- b) How often do you talk with another military wife from your husband's unit?
- c) How often do you and your husband get together with couples from his unit?
- d) Can you count on another military wife in your husband's unit for help with a personal or family problem?

The first and last questions have two level answers - 'yes' and 'no'. Answers to questions 2 and 4 range from 'everyday' through 'seldom or never' with four categories in between. The first three questions deal with structural support. They concern the existence of social relationships, and frequency of communication or social contact which may form the basis for the individual's perception of being supported. The last question deals with perceived instrumental support, and was the only measure of support found to be significantly related to general well being using a series of t-tests. This perceived support variable was the only measure of support which we ultimately used in our main

analyses. However, its relationship to the structural support variables was carefully explored.

ii) Social Supports (Time 2)

The question regarding instrumental supports from other wives in husbands' unit was asked again at Time 2. In addition, questions were added concerning support from other categories of people including military wives from other units, neighbors, family members, in-laws, and the spouse. Also included in the social support section at Time 2 were questions regarding expressive support from these same categories of individuals, as well as a question addressing the degree of participation in wives' support groups over the past 6 months. All social supports questions at Time 2 involved 5 responses choices with a neutral midpoint.

iii) Life Stress (Time 1)

Since the purpose of the study was to evaluate the implementation of a program, we were not interested in the occurrence of life events which would be specific to individuals, but rather in stressful experiences or ongoing strains common to all the military wives in our study.

One of the greatest sources of stress to wives of combat arms soldiers is the amount of time that they are separated from their husbands due to the latters' deployment on field exercises. Time spent in the field is influenced by the mission of the unit and training policies decided at the level of the battalion

commander or higher. In the survey of the soldiers, subjects were asked to estimate the amount of time that they were spending in the field. These estimates averaged 15 or 16 days per month for the soldiers in some units, as compared with six or seven days for those in others.

The soldier survey was based on a 75% sample, and it turned out that data was available on only 58% of the husbands of our study subjects. Therefore, since precise information was not available on time spent in the field by individual soldiers, we created a global measure which would capture relative differences in training conditions among units. This measure was based on soldiers' estimates of time spent in the field averaged across each battalion during the time period prior to the Spouse Survey. A stress variable was thus created based on the average number of days per month spent in the field by the soldiers in each battalion, and each wife was assigned a score based on the average for her husband's unit.

iv) Life Stress (Time 2)

At Time 2 we tried to develop a measure of stress that would take into account individual variation in soldiers' schedules, for example, overnight guard duty, as well as the cumulative effect of periodic absences over time. Subjects were asked: 1) How many times during the past 6 months that husbands had been deployed; 2) The usual length of a deployment in days 3) The number of times per months that husbands work overnight both on weekends and during the week while in garrison. Based on these

questions a composite measure of approximate total number of days husbands had been away overnight during the past 6 months was developed.

b) Findings from the Survey

i) The Buffering Hypothesis (Time 1)

One of the goals of the Unit Manning System is to promote social supports among military family members in order to mediate the effects of military life stress. Thus one of our primary tasks in this study was to test the hypothesis that support from other wives does in fact buffer the impact of military life stress. We were interested in the main effects of stress and support on general well being, as well as in the interaction of stress with support. However, the high degree of multicollinearity between support and the interaction term presented a problem with regard to the analysis. The correlation between support and the interaction term was .92, and it was therefore not appropriate to include both variables in the same regression model (See Table 5). Since support was a two level variable, however, we were able to overcome this problem by performing two separate regressions examining the effects of stress on well being. The first regression was performed for the group with support, while the second was performed for the group without support. Four background sociodemographic variables were also included in the model -- namely age, education, husband's rank, and number of children. The results of the regressions

indicated that stress was significantly related to well being only for the group that did not have support. In that group stress predicted lower general well being (See Table 6). The two regression equations were then compared using Chow's test of equality between two linear regressions (Gujarati, 1978). The F values for this model were 8.71 and 4.43 in the sub-sample and total sample, respectively. Both values were statistically significant ($P<.001$).

The findings presented here are consistent with those of numerous other studies which have demonstrated that psychiatric symptomatology is related to low levels of social supports under stressful conditions.

ii) Predictors of Social Support (Time 1)

Since the nature of perceived support is a controversial issue, variables which predict support are of importance to an understanding of the relationship between support, well being and stress. Two logistic regressions were performed in order to determine predictors of support. Variables included in the first model were: 1) type of unit 2) husband's rank 3) education 4) ethnic group 5) age 6) length of residence at installation 7) number of children 8) employment status and 9) stress (as defined above at Time 1). Major variables which predicted support were stress ($R=.09$, $P<.001$), husband's rank ($R=.17$, $P<.0001$) and battalion type ($R=.06$, $P<.05$). Smaller amounts of variance were explained by ethnic group, age, and employment status. Post hoc tests indicated that being in a COHORT

battalion (particularly in a stationery or non-rotating COHORT battalion), being an officers' wife, having a husband who spends more time in the field, being younger, being a homemaker, and being white were predictive of perceived support.

When the three structural support variables were added to the model, they explained 38% of the variance in perceived support. This was the largest portion of the total explained variance which totalled 55%. Other variables which predicted perceived support in this model were husband's rank ($R=.10$, $P<.0001$), and shorter length of residence at installation ($R=.06$, $P<.05$).

Thus initial examination of the sample as a whole indicated that officers' wives reported more availability of social supports than enlisted wives, and junior enlisted wives reported more available support than NCO wives. Ninety three percent of officers' wives reported being friendly with another military wife in their husbands' units, compared with 60% of NCO wives and 73% of junior enlisted wives. Furthermore, while 86% of officers' wives felt that they could count on another military wife for help with a problem, only 48% of NCO wives and 55% of junior enlisted wives felt likewise. Officers' wives talked more frequently with other military wives in their husbands' units, and together with their husbands, they visited other couples from these units more frequently.

While husband's rank emerged as an important correlate of social support for military wives, it is necessary to point out that sociodemographic characteristics related to rank such as

age, education and length of marriage were found to be uncorrelated with social support. It was therefore considered unnecessary to control for these variables in subsequent statistical analyses.

In examining networks within and across rank categories, we found that, for the most part, where friendships existed, they tended to be among wives whose husbands were of similar rank. The greater the disparities between husbands' rank, the less the likelihood of friendships existing among the wives. Thus of junior enlisted wives who reported having friends among other military wives, 90% were friendly with other junior enlisted wives, 55% were friendly with NCO wives, and only 24% were friendly with officers' wives. Among officers' wives, 99% reported being friendly with other officers' wives, while 48% and 28% reported being friendly with NCO wives and junior enlisted wives respectively. Likewise, 87% of NCO wives reported being friendly with other NCO wives, while 50% reported being friendly with junior enlisted wives, and 36% with officers' wives.

Breaking down our sample into specific Unit Manning System subgroups and focusing on perceived support, we found that while officers' wives in all types of units had much higher levels of support than enlisted wives, there were no apparent differences between junior enlisted and NCO wives in conventional Army units (Non-COHORT) (See Table 7). In COHORT units, and particularly in the stationery COHORT units where outreach programs to families

were the strongest, junior enlisted wives reported far higher levels of support than NCO wives.

The effects on social support of rank and Unit Manning System subgroups within rank were tested with the Categorical Modeling (CATMOD) procedure available in the Statistical Analysis System (SAS). This model tests the goodness-of-fit of a contingency table, particularly one with the type of nested effects in which we were interested. The results of this test presented in Table 8, confirm that rank is indeed a highly significant correlate of social support. They also show a significant unit-type effect for enlisted wives only. The effect is most significant for first term wives ($p < .001$) and somewhat less so for NCO wives ($P < .05$).

Dramatic differences between COHORT and Non-COHORT units are also evident in friendships across rank groups (See Table 9). The stationery COHORT battalions stand out again in this regard. Officers' wives in these battalions are far more likely to perceive themselves as friendly with NCO and junior enlisted wives than those in the other battalions, particularly the non-COHORT. Contrary to expectation, however, NCO wives in these battalions are not more likely than those in the others to perceive themselves as being friendly with junior enlisted wives, although they are more likely to perceive themselves as being friendly with officers' wives.

iv) Buffering Hypothesis (Time 2)

At Time 1 we were unable to answer the question as to whether stress-buffering could only occur through support from wives within husband's company, or whether other categories of support providers might be just as effective. At Time 2, six categories of support providers were identified as potentially relevant to a military wife:

- 1) Wives of other soldiers in her husband's company
- 2) Wives of soldiers in her husband's battalion but not in his company
- 3) Wives of soldiers from other battalions
- 4) Members of her own family, e.g., parents and siblings
- 5) Members of her husband's family
- 6) Friends not associated with the military

Subjects were asked two sets of questions on social support. The first question was: "If you had a problem that you wanted to talk about could you go to the following people?" This was followed by the 6 categories listed above, with 5 response choices : (1) definitely yes (2) yes (3) don't know (4) no and (5) definitely no. The second question was: "Could you count on the following people for help with a personal or family problem?" This was followed by the same 6 categories listed above, with 5 response choices: (1) never, (2) rarely, (3) sometimes (4) most of the time (5) all of the time.

A factor analysis performed on the above 12 variables using varimax rotation, revealed 5 factors:

- 1) Support from unit wives (both company and battalion)

- 2) Support from own family
- 3) Support from husband's family
- 4) Support from other Army wives
- 5) Support from civilian friends

Scales were formed by summing the items which loaded on each factor. Factors 2 and 3 were combined to form a single scale owing to the high inter-item correlation and similarity of content.

Typically, testing for a buffering effect involves the inclusion of a stress X support interaction term in a multiple regression, with some measure of health or psychological well being as the dependent variable. In our earlier study this approach was not adopted owing to the high correlation between stress and the interaction term which raised concerns about multicollinearity. The same problem was evident in this study, where the stress measure correlated highly with the various interaction terms. The correlations for the stress X support interaction terms ranged from .77 to .86. We therefore decided to adopt a similar approach to that of our earlier study.

Subjects who scored at or above the median on each scale were assigned to a high support category, while those who scored below the median were assigned to a low support category. The impact of stress on GWB was examined within each high and low support category using multiple regression, controlling for age, and highest level of education attained. Husband's rank was excluded as a control variable because previous analyses had shown that it did not impact on well-being independently of age.

and education. Beta coefficients for stress were compared across each pair of equations using a z test.

Zero order correlations among study variables are shown in Table 10. The results of the regression analyses are shown in Table 11. Stress was found to have a significant impact on well-being only under conditions of low support from other unit wives. Stress was also found to have a modest impact on well-being under conditions of high support from non-unit Army wives. However, there was no significant difference between beta coefficients for stress across the categories of high and low support from non-unit Army wives. The only significant difference between betas was found across the category of high and low support from unit wives.

v) Predictors of Support (Time 2)

The focus in this paper was on perceived instrumental support from other military wives in husbands' units because this type of support has previously been demonstrated to have a buffering effect on the stress of husbands' absence due to field duty. An attempt was made to understand the antecedents of perceived support using a path analytic model. We argued that husband's rank influenced perceived support through promoting participation in wives groups activities, and that this relationship would be demonstrated even after controlling for the possible effects of personality.

Perceived support at Time 2 was the dependent variable in the first regression, and in the path model. The independent

variables in this regression model included husband's rank, participation in wives' group activities during the past 6 months, type of unit, the interaction effect of unit type and rank, and length of time in the battalion. All these variables, though recorded at Time 2 can nevertheless logically be argued to have originated at a point in time prior to Time 2.

The dependent variable in the second regression model was degree of participation in wives' group activities. Husbands' rank was hypothesized to have no direct relationship to support, but to be a strong influence on participation in wives' groups. The independent variables in the second model included rank and unit type, the interaction effect of rank and unit type, and length of time in the battalion.

In addition to the variables in the path model, 4 control variables were included in the regression analyses. These were social support at Time 1, and the three personality variables.

Zero order correlations among study variables indicated that the correlation between rank and social support at Time 2 is much smaller than at Time 1, and is non-significant at Time 2. Conversely, the correlation between Unit Manning System subtype and social support is greater at Time 2 than at Time 1, and is significant at Time 2. The decreased correlation between rank and support at Time 2 is largely attributable to the decrease in support for Non-COHORT officers' wives (See Table 12). The interaction effect of rank by Unit Manning System subtype, however, is significantly correlated with support at Time 2. Note that the negative correlation between support and wives'

group activity is due to the fact that these variables are scored in opposite directions.

The effects of husbands' rank, wives' group participation, and Unit Manning System subtypes on perceived social support is presented in Table 13. Path coefficients demonstrating a proposed causal relationship between wives' group participation, and Unit Manning System subtype on perceived support are presented in Figure 1. Our results indicate that only wives' group participation and length of time in the battalion have a significant direct effect on perceived social support. Husbands' rank and Unit Manning System subtype, on the other hand, have no direct effects on perceived social support, but both have direct effects on wives' group participation, and therefore small indirect effects on social support (see Table 14).

Four exogenous variables were included in the model. We controlled for previous levels of social support and three personality variables. Previous levels of social support, Emotional Reliance On Another Person and Mastery were significantly related to the dependent variable at the $P < .05$ level. Self esteem was likewise significantly related to participation in wives' group activity.

Our assumption that the relationship between rank and support would not change over time was incorrect, and while constructing the path model yielded some useful insights, we were nevertheless unable to test our original hypothesis. The reasons for the high levels of support for officers' wives at Time 1

remains an unanswered question, and we can only speculate as to what this might be.

This study does, however, highlight the fact that social supports do change over time and that these changes are associated with membership of certain clearly defined groups (e.g., Non-COHORT officers' wives) suggesting that social factors play some role in promoting or decreasing social support. It should be noted that while the correlation between rank and support at Time 2 is non-significant, the interaction effect of rank by Unit Manning System subtype does correlate significantly with support. This interaction effect, however, was not a significant independent variable in the regression models on which the path model was based. The reason for this is probably that wives group activity explains most of the variance in the interaction effect.

Since the personality variables were measured at the same time as the dependent variable - social supports at Time 2 - it was not possible to include them in the path model as predictors of support. They were, however, included in the regression model as control variables. Data are currently being analyzed on social supports and personality at Time 3, and this will enable us to determine the influence of personality on social supports across time.

While it may be argued that the personality variables used in this study by no means address all - or even the most important - personality characteristics likely to affect social support, our study results nevertheless indicate a strong

association between support and social group membership which is largely beyond individual control and therefore the influence of personality. Our findings suggest that social factors which promote perceived support are those which give people greater opportunity for meeting and keeping potential support providers - namely degree of participation in wives' group activities and length of time in the unit. While husbands' rank and Unit Manning System subtypes were not directly related to support, they played an important role in promoting participation in wives groups, and thus indirectly influencing supports.

c) Conclusions Relevant to the Army

- 1) Social support from other wives within husbands' unit buffers military wives against the stress of husbands' absence due to field duty.
- 2) Support from non-unit wives is not as effective as support from wives within the unit (either company or battalion)
- 3) The most significant predictor of support is the degree of activity in wives' support groups. The more a wife participates, the more likely she is to have support.
- 4) Wives most likely to participate in support group activities are COHORT wives and officers' wives.

d) Wives Comments Regarding Social Supports

While analysis of the data indicates that participation in a Family Support Group can be an important source of social support mediating stress, the comments of survey wives give us insight into some of the dynamics of obtaining this support. For instance, while vertical support appears to be beneficial for those who have it, there appear to be several factors inhibiting it. Among these factors is first and foremost a strong focus on rank. A husband's social status is ascribed to his spouse. As one NCO wife commented, "even wives must go by rank". Within the family support groups rank also appears to dominate. One officer's wife quoted the highest ranking wife in her support group as saying "this is not a democracy. What the major's wife says goes." One NCO wife expressed resentment over being treated "like nobody because my husband is only a sargent (sic)" while another E-5 wife expressed the desire for effective distribution of information in a situation where "rank doesn't rule...I don't want to talk to some officer's wife." Feelings of intimidation are also expressed by junior enlisted wives, one stating that she didn't know any officers' wives, since she "was not on their social level." Another E-4 wife commented that officers' wives look at enlisted men's wives as if "we're better than you...and make you feel out of place." These feelings are apparently a reflection of attitudes and beliefs about fraternization the husbands bring home with them as illustrated by the comments of a junior enlisted wife who reported "some

officers tell their E-5's not to associate with the lower ranks." Another wife mentioned an officer whom the men seemed to respect and trust, but who was reprimanded for his conduct in attempting to socialize with the enlisted men.

Another source of dissatisfaction with Family Support Groups related to rank was the complaint that the groups only increase the gap between the officers' families and the enlisted soldiers' families, i.e., that sharing their family experiences only demonstrated how different their lives were in comparison. One officer's wife summed up:

"They (the enlisted) live in substandard housing on substandard pay. They feel they have nothing in common with officers' wives, and frankly, they don't."

A second factor that may have some effect on participation in the Family Support Groups (FSG) is the nature of the participation in these groups. Across ranks there were expressions of resentment about the forced nature of participation, particularly from the senior enlisted and officers' wives. One officer's wife reported that she was told by the Col.'s and Lt. Col.'s wives that if she did not support these battalion functions it would reflect on her husband's OER. The wife of an E-8 was told that her husband would be replaced if she didn't participate.

A third factor that may hamper participation in the FSGs is the concern that these meetings serve as a way of pipelining information about family problems back to those in command. Several officers' wives note that this is a belief on the part of

junior enlisted soldiers who "refuse to allow their wives to attend." There is some indication that this type of distrust inhibits horizontal bonding as well. Several comment-writers stated their reluctance to confide in other wives in their husband's unit for fear that the information would somehow harm his career. As one spouse wrote:

"I made a sincere effort to make time to join our present FSG, boy, was that a huge mistake. There were NCO's wives who loved to gossip. I will never again trust anyone in our support group. I am keeping to myself. So much for 'Family Support'".

Factors such as these, whether real or perceived, seem to be effective barriers to participation in the FSGs, probably the best potential source for both vertical and horizontal support among wives.

Interestingly, the units in which family support seemed to be the most successful and gossip-free tended to be mostly COHORT units. The families seemed more likely to be satisfied with the support and help they received. One spouse reveals how rewarding the FSG's can be to wives when they work successfully:

"We have a strong and great FSG program. I am very active and I feel this helps with the stress factor, while our husbands are gone. I love the FSG. It's about time the Army started caring about the families."

IV. IMPACT ON THE SOLDIER

Part One: Morale

Data were available for 326 military couples who participated in both the first and second soldier surveys as well as the spouse survey. The 326 soldiers and spouses who are included in these analyses were compared with those who could not be matched. Both groups were similar with regard to sociodemographic background characteristics such as soldier's age, spouse's age, soldier's education, spouse's education, number of dependents, soldier's rank, and spouse's employment status. The following measures were used in this analysis:

a) The Measures

i) Leadership in Husband's Unit

The spouse's questionnaire included 44 items measuring satisfaction with different aspects of Army life including husband's job, leadership, benefits, salary, housing, and various types of hardships such as separation and relocation. A factor analysis of these 44 items yielded 10 factors, which have been described in detail elsewhere (see Chapter II above). The main factor dealt with attitudes to husband's unit, and had an eigenvalue of 11.5, accounting for 25.6% of the variance in the factor pattern. A summative scale was created from the 8 variables which loaded on this factor with a factor loading of .5

or higher. These variables concerned satisfactions with husband's unit, husband's job, husband's duty hours, leave policies of husband's unit, training schedule of husband's unit, leadership in husband's unit, the unit's concern for families, and the respect the Army shows wives. Satisfaction with all variables was expressed on a five point Likert scale ranging from completely dissatisfied to completely satisfied. The alpha coefficient of internal reliability was .89 for this scale.

ii) Personal Morale

The soldiers' questionnaire included 102 items measuring various aspects of cohesion and morale. Personal morale of soldiers was based on a 5 item scale derived from factor analyses of the 102 morale and cohesion items in the soldier questionnaires. All items had to relate substantively to the respondent's sense of self efficacy, confidence, worth, or pride with respect to his military role. In addition, all items had to load on the same factor for factor analytic solutions of the morale and cohesion items at both Time 1 and Time 2. Loadings of the scale ran from .44 to .62 at Time 1 and from .46 to .60 at Time 2. The scale comprised the following items: 1) What is the level of your personal morale? 2) I am proud to be in the Army 3) I am an important part of my company 4) What I do in the Army is worthwhile 5) If I have to go into combat, I have a lot of confidence in myself, 6) On the whole the Army gives me the chance to be all I can be.

Items were measured on a Likert type scale ranging from strongly

disagree to strongly agree, except for item 1 which ranged from very low to very high. Cronbach's Alpha for this scale was .76.

iii) The Army/Family Interface

A third scale which we call the Army/Family Interface Scale was used in this analysis. This scale was derived from four of 20 Army life satisfaction items administered only to married soldiers. These items deal with the soldier's perception of Army's impact on the family, as well as the family's attitude towards the Army. They are as follows:

- 1) The concern my unit has for families.
- 2) The respect the Army shows wives
- 3) The kind of family life you can have in the Army
- 4) How my wife would feel if I decided to make the Army a career.

All items were arranged in the form of a Likert type scale. Cronbach's Alpha for this scale was .73.

b) Findings from the Surveys

i) Description of the Subsample

Of the 326 couples on whom data were available at three points in time, 127 belonged to the junior enlisted ranks (E1-E4), 157 belonged to the Non-Commissioned Officer (NCO) ranks (E5-E9), and 42 belonged to the officer ranks (O1-O5). Because of the relatively small number of officers in the sample, multivariate analyses were limited to the enlisted ranks.

Separate analyses were performed for the junior enlisted couples and NCO couples because previous studies have shown that these comprise separate populations based on sociodemographic and attitudinal differences (Martin, 1985; Martin & Ickovics, 1987).

ii) Bivariate Correlational Analyses

Zero order correlations among the various study variables for junior enlisted, NCO and officer couples are presented in Tables 15, 16, and 17. As expected, within-subject correlations tend to be higher than between-subject correlations.

iii) The Path Model

A path analytic model was used to examine the impact of wife's attitude to unit on husband's morale both directly, and indirectly via husband's satisfaction with the Army/Family Interface, controlling for prior morale as well as for prior satisfaction with the Army/Family Interface. The model was constructed on the basis of three sets of multiple regressions in which causal ordering is assumed to run from independent to dependent variables. The first regression examined the effects (represented by standardized beta weights) of husband's morale at Time 1 and Army/Family Interface at Time 1 on wife's attitude to unit at Time 2. The second regression examined the effects of wife's attitude to unit at Time 2 on Army/Family Interface at Time 3 controlling for the effects of Army/Family Interface at Time 1. The final regressions examined the effects of wife's attitude to unit at Time 2 and the Army/Family Interface at Time

3 on husband's morale at Time 3, controlling for husband's morale at Time 1. Each regression was performed twice - once for the junior enlisted sample, and once for the NCO sample.

iv) Direct and Indirect Effects

The effects of wives' attitude on morale and the effect of soldiers' attitudes on wives' attitudes for both NCO and junior enlisted couples is presented in Table 18. Path coefficients demonstrating a proposed causal relationship between wife's attitude and husband's morale and between husbands' attitude and wives' attitudes for NCO and junior enlisted couples are presented in Figures 3 and 4. Our results indicate that wife's attitude does affect husband's subsequent morale, but this operates differently for NCO and junior enlisted couples. Among NCO couples, wife's attitude has a direct impact on soldier's morale ($P2=.255$, $P<.01$), while among junior enlisted couples there is no direct effect ($P=-.021$, n.s.), but there is an indirect effect through the Army/Family interface ($P2*P4=.25$). Furthermore, we found that husbands' prior morale does not affect wives' attitudes to the unit, but husbands' satisfaction with the Army/Family Interface ($P7$) does have an effect on wives' subsequent attitudes (See Figures 3 and 4).

v) Interpretation of the Path Model

Critical to our interpretation of this path model is an understanding of the relationship between two key variables - namely personal morale and the Army/Family interface. Our

assumption in this path model is that the former influences the latter and not vice versa. Perhaps our strongest argument for the direction of this influence comes from the strengthening over time of the correlations between personal morale and the Army/Family interface for officer and junior enlisted couples, but not for NCO couples. This is important in view of the differences in experience of and adaptation to the Army as well as to marriage and family life among the three groups. The junior enlisted couples in particular, are mostly new to the Army and many are just beginning their first tour. They are also newly married, and about to begin adjusting their lives to the arrival of babies. Eighteen percent of junior enlisted wives were pregnant at the time of completing their questionnaires, and many junior enlisted soldiers were becoming parents for the first time towards the end of the study. Difficulties experienced in coping with newly arrived infants and with the stress of frequent separations from their vulnerable young wives are likely to be blamed on the unit, which encroaches on the time and energy resources needed to handle these growing family demands. This perceived lack of fit between the demands of the Army and of personal and family needs, leads to a lowering of morale.

On the other hand, NCO couples have had considerably more experience of both the Army and of family life than junior enlisted couples, and in addition, since they are people who have chosen to continue with the Army way of life after completing their first tours, we can assume that (1) they are survivors of the system, and therefore a select group, and (2) they have come

to terms with aspects of Army life that the junior enlisted are still grappling with. NCO couples have been married longer than junior enlisted and many officer couples and have learned to make adjustments to married life. Their children are older, and the wives more experienced, more self sufficient, and less needy of their husbands' time. It is therefore not surprising that in this group, the correlation between morale and the Army/Family Interface is stable over time.

c) Conclusions Relevant to the Army

- 1) Among junior enlisted couples, wives satisfaction with husband's unit has a significant influence on soldiers' perception of the fit between Army life and family life. This in turn affects soldiers' personal morale.
- 2) Among NCO couples, wives' satisfaction with husbands' units has a direct impact on soldiers' personal morale.

Part Two: Reenlistment

Impact of the family on reenlistment was studied in a matched subsample of 121 first term junior enlisted soldiers and their wives. The soldiers participated in the third wave of data collection in the soldier survey. The wives participated in the second wave of the spouse survey which occurred approximately six months after the soldier survey. These couples were then matched with reenlistment data on the soldiers obtained from Personnel

Command (PERSCOM). The sample was limited to those whose reenlistment decision was made subsequent to data gathered from the wives.

The purpose of the study was to examine the reciprocal nature of the relationship between the Army and the family and its impact on reenlistment behavior. The research asks the following questions:

1. What are the factors within the Army that are most likely to have an impact on the family?
2. How do these factors shape the attitudes the family has toward the Army?
3. How do these attitudes influence subsequent reenlistment?

Specifically, this research looks at the impact of structural and social-psychological aspects of the military experience on the soldier, its impact on the way soldier and spouse view the compatibility of military and family life (the Army/Family Interface) and the effects these attitudes will have on the soldier's reenlistment.

a) Measures

The following measures were used in this analysis:

Time 1 - Soldier Data

- i) Number of hours per week reported worked by soldier
- ii) Soldier's Perception of Time Conflicts

This measure is related to problems created by the work schedule and assesses the extent to which time is a problem for

the soldier in meeting family, leisure and basic maintenance demands. Individual items are measured on a five point Likert type scale and the respondent is asked his level of agreement with each of the items, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The following items are included: 1) I have enough time to take care of my personal needs such as going to medical appointments, commissary shopping, going to the cleaners, getting a hair cut, and things like that. 2) I have enough time for relaxation and entertainment. 3) I have enough time to spend with family members and friends. Cronbach's alpha for the scale is .91.

iii) Soldier's Financial Satisfaction

Soldiers were asked to rate their satisfaction with a list of 16 issues that related to military and family life. The financial satisfaction scale was derived from a factor analysis of this list. Individual items are measured on a five point scale and include the following: 1) Standard of living in the Army; 2) Family income; 3) Savings. The instrument has a Cronbach's alpha of .745.

iv) Unit Emotional Climate (concerned leadership)

This scale consists of eight items and was constructed from a factor analysis of items related to leader/soldier relations or vertical cohesion. It is a measure of concerned leadership. Respondents are asked their level of agreement on a five point Likert type scale that includes the following items: 1) The

platoon sgt. talks to me outside normal duty hours. 2) The platoon leader talks to me outside normal duty hours. 3) The Company CDR talks to me outside normal duty hours. 4) Officers are interested in my personal welfare. 5) NCOs are interested in my personal welfare. 6) Officers are interested in what I think. 7) NCOs are interested in what I think. 8) I could go for help to the chain of command. Cronbach's alpha for this scale is .84.

v) Soldier's Personal Morale

This scale is the same measure as that described in the preceding research. For this particular sample the Cronbach's alpha for the instrument is .81.

vi) Soldier's perception of the Army/Family Interface

This scale is the same measure as that described in the preceding research. Cronbach's alpha for the instrument in the current sample is .83

vii) Soldier's attitude toward staying in the Army

Respondents were asked: If you could, would you get out of the Army today? Responses range from 1 ("definitely no") to 5 ("definitely yes").

Time 2 - Spouse Data

i) Leadership in Husband's Unit" the instrument used in the preceding research was broken down into separate sub-factors that

include: schedule satisfaction, a global measure of satisfaction with unit leadership and a measure of the Army/Family Interface that parallels the soldier's measure of the Army/Family Interface. Validation for the strategy of looking at individual subcomponents comes from the finding that the wife's Army/Family Interface was the only statistically significant predictor of her attitude toward her husband staying in the Army.

ii) Predictability of husband's schedule

Spouses were asked: How often does your husband come home from work at the time you expect him to arrive? Responses ranged from 1 ("most of the time") to 4 ("never").

iii) Wife's satisfaction with husband's work schedule

Individual items in this scale are measured on a Likert type scale ranging from 1 ("completely dissatisfied") to 5 ("completely satisfied"). The scale contains the following items: 1) Your husband's duty hours 2) The leave/time off policies of your husband's unit 3) The training and field exercise schedule of your husband's unit. Cronbach's alpha for the instrument is .73.

iv) Wife's satisfaction with unit leadership

This is a single-item measure that asks spouses to rate on a Likert type scale their satisfaction with leadership in their husband's unit. Responses range from 1 ("very dissatisfied") to 5 ("very satisfied").

v) Wife's perception of the Army/Family Interface

This measure is similar to the husband's perception of the Army/Family Interface, with the addition of one item asking about the Army way of life. Cronbach's alpha for this measure is .75.

vi) Wife's attitude toward husband staying in the Army

Spouses are asked to indicate on a five point Likert type scale ranging from 1 ("definitely no") to 5 ("definitely yes) "if your husband could get out of the Army tomorrow, should he?"

Time 3 - Reenlistment data from PERSCOM

Reenlistment data was obtained from PERSCOM indicating whether the soldier had reenlisted since the data collected at Time 1 or had left the Army. Those who had not yet made the reenlistment decision were excluded from the sample.

A path model was constructed in order to examine the impact of work variables on both the soldier and his spouse's perception of the compatibility of Army and family life and soldier and spouse's attitude toward staying in the Army. Work variables were predicted to have both direct and indirect (through their influence on the Army/Family Interface) effects on attitudes toward staying in the service (See Figure 5). These attitudes were then used to predict reenlistment behavior.

b) Findings from the Survey

There are significant relationships between both soldier's and wife's attitudes toward staying in the Army and the soldier's subsequent reenlistment behavior (See Table 19). The use of multivariate statistics provides statistical control of other variables in the model, allowing one to examine the independent effect of each variable. That is, while both the soldier and his spouse's attitudes towards staying in the Army were important predictors of reenlistment, the unique effect of each of these attitudes on reenlistment can be examined. In the case of the present analysis, it is important to note that the wife's attitude was a somewhat stronger predictor ($B=-.213$, $p<.01$) than the soldier's own attitude ($B=-.203$, $P<.05$).

Of equal importance for the Army are the determinants of these attitudes. None of the work-related variables had significant direct effect on these attitudes. Work factors are important only indirectly in the way in which they shape both soldier and spouse's perception of the Army/Family Interface (See Figure 5).

The spouse's perception of the Army/Family Interface, the degree to which Army and family life are perceived to mesh, is the most important predictor of her attitude toward whether or not her husband should stay in the Army. The more positive the response of the wife to the compatibility of military and family life, the more she is likely to respond that her husband should not get out.

The perception of the Army/Family Interface on the part of the wife was in turn significantly influenced by her satisfaction with leadership and her satisfaction with husband's schedule. Of particular interest here, is the fact that long hours, and days away were not significant in predicting either satisfaction with unit leadership or satisfaction with scheduling. Wives appear to accept these features of military life as a given. The factors that significantly predict wife's satisfaction with schedule are 1) predictability of husband's schedule and 2) the soldier's perception of adequate time to attend to personal and family needs.

The soldier's perception of the Army/Family Interface had a strong significant impact on his attitude toward staying in the Army (equalled only by his own personal morale). His perception of the Army/family interface was predicted by his satisfaction with finances, his perception of adequate time to attend to personal and family demands and his perception of unit emotional climate (concerned leadership).

This study highlights the importance of the influence of family support on the retention of military personnel. Work-related factors appear to influence retention only indirectly in the way they affect the perception of compatibility between Army and family life. This perception of the Army/family interface is critical not only for the spouse but the soldier as well. More compelling evidence of the importance of family support for retention is the finding of the somewhat stronger influence that wife's attitude toward staying in the Army seems to have on

subsequent reenlistment. The findings reinforce the importance of reconceptualizing the Army/family interface from that of two "greedy" institutions (Segal, 1986) vying for the soldier's time and resources to that of an Army/family partnership based on mutual cooperation.

c) Conclusions Relevant to the Army

1. Wives' attitudes towards whether or not husbands should stay in the Army have a significant effect on actual reenlistment.
2. Wives' attitudes towards husbands' staying in the Army are primarily influenced by the extent to which they see Army life and family life as compatible.
3. Wives' perceptions of the compatibility of Army and family life are influenced by satisfaction with leadership and satisfaction with husbands' schedule.
4. Factors influencing wives' satisfaction with husbands' schedule include predictability of hours and husbands' perception of adequate time to spend with their families.

Taken together, this research suggests that by increasing the predictability of work hours and ensuring the soldier adequate time to spend with family the Army can increase both the soldier and his spouse's perception of concerned leadership. This in turn is likely to significantly increase reenlistment.

d) Wives Comments Relating to Impact on the Soldier

Paralleling empirical research on the impact of the family on the soldier's ability to do his job, many wives also recognized the relationship between happy home lives and effective soldiers. Comments from several wives offer corroborating evidence of the relationship between the work/family interface and the soldier's personal morale. "A soldier that does not have peace of mind and is having so many family problems due to not being able to be home enough is not happy or confident in his work, and if that lacks, he is not giving his best." The attitude that a unit has toward a soldier's family can determine whether or not the soldier is satisfied with his job, which in turn, impacts on his performance at work. "The morale, care, well-being and values of family members have not been shown enough importance at the unit level, thereby decreasing the effectiveness of the modern fighting force." Another wife suggested that fewer men would go AWOL if superiors showed more understanding for families and their husbands.

Comments from several wives suggests that the family also seems to be an active influence in the soldier's career decision. Many wrote that they look forward to living a "normal life" and being "a real family" when they leave the Army. Several wives gave the negative impact on their families as the main reason they wanted their husbands to get out. They lose a

lot of hard-working people, one wife noted, "because of the way the Army fools around with the family."

V. CONCLUSION

The purpose of this study was to evaluate the impact of the Army on military families, and the impact of the military family on soldiers' morale, readiness, and retention. The Unit Manning System Field Evaluation examined critical aspects of support within units, and factors which promote bonding and cohesion essential for an effective fighting force. The Family Health Study revealed that for those soldiers who are married, there is another critical type of support which impacts upon soldiers' effectiveness - namely support from their wives. Our findings indicate that to ignore the Army family is probably to ignore the single most important factor outside the unit affecting morale and retention. When the soldier and his wife feel that their fundamental need to have an acceptable form of family life is of little concern to leaders, morale plummets, and the desire to leave the Army is expressed.

The most tangible evidence that the unit cares about the soldiers' family life is in the scheduling of predictable time for families to be together, signaling the acceptance by leaders of the family as an important and necessary part of the soldier's life, contributing towards his well-being and ultimate fighting effectiveness.

The wives in this study did not expect to be considered first, and realized that a commitment to the mission was a priority for their husbands. Indeed many of them were proud of their husbands' service to the country and of their own contribution in helping them to be effective soldiers, providing

them with healthy secure home lives. What many objected to were not mission-essential sacrifices, but those which in their view were for the purposes of "making leaders look good."

Military wives are required to make sacrifices with regard to their own career advancements. Perhaps a generation ago, their marital role would not have been perceived as very different from that of their civilian counterparts. Since that time in the civilian world there have been radical changes in women's role expectations. In the military, since the mission has to come first, there cannot be equality between the active duty and non-active duty spouses with regard to career demands. And since most active duty members are male, the husband's career is generally going to take precedence over the wife's. While most wives are prepared for this, they feel a lack of appreciation on the part of the Army for what they have to give up - completing their education, job seniority, pay increases - possibly any employment close to their chosen field. The Army is perhaps still judging them on the basis of sex role expectations of former generations.

Finally, this study has revealed that social supports can be an effective way of helping wives cope with stress. It also revealed that over time there was an overall loss of support among study subjects, particularly among Non-COHORT officers' and NCO wives. No groups had any substantial gain in support over time, which should be of concern. Many comments suggest that if the promotion of supports is not in keeping with certain guidelines, they may be ineffective, and even harmful. In order

to be effective, support groups must have the following characteristics: 1) they must be voluntary 2) program leaders must be competent and discourage gossiping and 3) members must have a sense of equal status within the group. Both statistical evidence and voluntary comments strongly indicate that effective family support groups are found predominantly in COHORT battalions. However, even here, there is considerable room for improvement in the promotion of support.

The key to dealing with most of the problems described here lies in strong, effective and caring leaders, who must be educated and informed about the needs of the soldier and the military family.

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TABLE 1

Sociodemographic Characteristics of Samples

| Characteristic | | Time 1 (N=947) | Time 2 (N=1148) |
|-------------------|---------------------------|-------------------|--------------------|
| Age | mean (SD) | 27.0 (6.0) | 27.3 (5.7) |
| Husband's Rank | | | |
| | E1-E5 (%) | 28 | 26 |
| | E5-E9 (%) | 56 | 58 |
| | O1-O5 (%) | 16 | 16 |
| Employment Status | | | |
| | Homemaker (%) | 40 | 35 |
| | Full time employed (%) | 24 | 22 |
| | Part time employed (%) | 16 | 17 |
| | Unemployed (%) | 20 | 26 |
| Education | | | |
| | Less than 12 years (%) | 14 | 14 |
| | Completed High School (%) | 36 | 37 |
| | Some college (%) | 50 | 49 |
| Ethnic Group | | | |
| | White (%) | 74 | 74 |
| | Black (%) | 13 | 14 |
| | Other (%) | 13 | 12 |
| Children | | | |
| | Yes (%) | 72 | 77 |
| | No (%) | 28 | 23 |

TABLE 2
DOMAIN CONTENT BASED ON FACTOR ANALYSIS

(Eigenvalues shown in parentheses beside domain headings)

| | |
|----------------------------------|------------------------------|
| 1) Husband's Job (11.5) | 2) Financial Matters (2.8) |
| demands of military duties | making ends meet |
| husband's unit | standard of living |
| husband's job | family income |
| husband's duty hours | savings |
| unit leadership | sufficient education |
| unit training schedule | Army pay and allowances |
| unit concern for families | |
| 3) Military Life Stress (2.2) | 4) General Army Life (2.0) |
| relocation | Army standard of living |
| maintaining contact with parents | Army way of life |
| husband's safety | job security |
| coping with separation | retirement benefits |
| losing a good friend | family life in the Army |
| concerns about combat | respect Army shows wives |
| Army rules and regulation | the Army as a career |
| 5) Community (1.8) | 6) Spouse Employment (1.7) |
| problems in neighborhood | finding a good job |
| satisfaction with neighborhood | losing a good job |
| housing | local job availability |
| community | |
| post location | |
| 7) Intimate | 8) Friendship (1.1) |
| Relationships/Health (1.5) | finding a good friend |
| marriage | satisfaction with friendship |
| family life | |
| health | |
| 9) Education (1.0) | 10) Health Care (1.0) |
| finishing education | post health care |
| satisfaction with education | |

TABLE 3
 Regression of Factor Scores on General Well Being and Life
 Satisfaction of Military Wives Controlling for Age, Education,
 and Husbands' Rank+

| FACTOR | General Well Being | | Global Life Satisfaction | |
|-----------------------------------|--------------------|-------------------|--------------------------|---------|
| | R square change | F value change | R square change | F value |
| Intimate Relationships and Health | .141 | 168.5** | .119 | 298.5** |
| Friendship | .034 | 37.5** | .033 | 49.5** |
| Military Life Stress | .033 | 36.7** | - | - |
| Community | .033 | 33.3** | .024 | 36.9** |
| Financial Matters | .033 | 28.8** | .047 | 80.9** |
| Husband's Job | .027 | 20.8** | .029 | 46.7** |
| Health Care | .015 | 21.6** | - | - |
| General Army Life | - | - | .018 | 27.5** |
| Spouse Employment | - | - | .007 | 10.6** |

+ 7.3% of the variance in GWB and 3% of the variance in GLS was explained by variables which we controlled for - name age education and husband's rank

* P<.001

** P<.0001

TABLE 4
 Proportion of Variance in General Well Being (GWB)
 and Global Life Satisfaction (GLS) Explained by
 Life Domains within Rank Groups

| DOMAIN | Junior Enlisted Wives | | NCO Wives | | Officers' Wives | |
|-------------------------------------|-----------------------------|-------|--------------|-------|--------------------|-------|
| | GWB | GLS | GWB | GLS | GWB | GLS |
| Intimate(a) Relationships/Health | - | - | .182* | .224* | - | - |
| Intimate(c) Relationships | .148* | .218* | - | - | .145* | .210* |
| Health/Friendship(c) | - | - | - | - | .074* | .033* |
| Friendship(a) | - | - | .024* | .028* | - | - |
| Financial Matters | .016* | .035* | .067* | .109* | .036* | .016 |
| Military Life Stress | .081* | - | .051* | .006* | .041* | - |
| Community | .037* | .028* | .052* | .031* | .049* | .027* |
| General Army Life | .01* | .016* | - | .013* | - | .048* |
| Institutional Support(a) | - | - | .021* | - | - | - |
| Husband's Job | .029* | .074* | .032* | .016* | - | .026* |
| Interpersonal Loss(b) | .026* | .031* | - | - | - | - |
| Education(c) | .015* | - | - | - | .017 | .019* |
| Spouse Employment | - | - | - | .007* | .014 | - |

* statistically significant above the $p < .05$ level

(a) domain is specific to NCO wives

(b) domain is specific to junior enlisted wives

(c) domain is specific to junior enlisted and officers' wives

TABLE 5
 ZERO ORDER CORRELATIONS OF DEPENDENT AND INDEPENDENT VARIABLES
 IN SAMPLE OF 945 MILITARY WIVES

| | GENERAL STRESS | SUPPORT | STRESS* | EDUC- ATION | RANK | N OF AGE CHILDREN | | |
|-----------------------|----------------|---------|---------|----------------|------|----------------------|-----|-----|
| WELL BEING | | | SUPPORT | | | | | |
| GENERAL WELL BEING | 1.0 | | | | | | | |
| STRESS | -.07 | 1.0 | | | | | | |
| SUPPORT | .21 | .11 | 1.0 | | | | | |
| SUPPORT *STRESS | .18 | .40 | .92 | 1.0 | | | | |
| EDUCAT- ION | -.20 | .02 | 0 | -.017 | 1.0 | | | |
| RANK | .20 | -.04 | .16 | .11 | -.29 | 1.0 | | |
| N OF CHILD- REN | -.04 | -.01 | -.05 | -.05 | .14 | .11 | 1.0 | |
| AGE | .14 | 0 | -.05 | -.06 | -.10 | .36 | .28 | 1.0 |

CORRELATION COEFFICIENTS OF .1 AND ABOVE ARE STATISTICALLY
 SIGNIFICANT AT P<.001.

TABLE 6
 REGRESSION SHOWING EFFECTS OF STRESS ON WELL-BEING
 FOR TOTAL SAMPLE OF MILITARY WIVES
 WITH AND WITHOUT SUPPORT

| VARIABLE | NO SUPPORT | | | | SUPPORT | | | |
|-----------------------|------------|-----|------|-----------------|------------|-----|------|-----------------|
| | B VALUE | SE | BETA | R SQU CHANGE | B VALUE | SE | BETA | R SQU CHANGE |
| EDUCATION | -5.5 | 1.2 | -.22 | .063*** | -2.5 | 1.2 | -.10 | .010 |
| RANK | 3.5 | 1.8 | .10 | .007+ | 2.6 | 1.2 | .10 | .034*** |
| AGE | 0.3 | 0.1 | .10 | .019** | 0.3 | 0.1 | .11 | .007+ |
| NUMBER OF CHILDREN | -0.6 | 1.0 | -.03 | .000 | -1.5 | 1.1 | -.06 | .003 |
| STRESS | -1.4 | 0.4 | -.18 | .029*** | -0.3 | 0.3 | -.04 | .002 |

| | | | |
|-------------------------|-------|-------------------------|------|
| R2 | .12 | R2 | .056 |
| N | 364 | N | 501 |
| F RATIO FOR EQUATION | 10.72 | F RATIO FOR EQUATION | 6.12 |

+
 P<.10
 *
 P<.05
 **
 P<.01

 P<.001

TABLE 7

Rank Differences in Social Supports
Among COHORT and Non-COHORT Wives

| | TYPE OF BATTALION | | |
|--|--------------------|----------------------|---------------|
| | COHORT ROTATING | COHORT STATIONERY | NON COHORT |
| First Term Wives (N=249) (percent with support) | 55.8 | 74.6 | 42.7 |
| NCO Wives (N=493) (percent with support) | 48.2 | 57.9 | 43.5 |
| Officers' Wives (N=152) (percent with support) | 90.2 | 85.3 | 82.5 |

TABLE 8

Effects of Rank and Unit Manning System Subgroups on
Social Supports Using CATMOD Procedure

| INDEPENDENT VARIABLES | df | CHI SQUARE | SIGNIF |
|------------------------------------|----|------------|--------|
| Husband's Rank | 2 | 49.3 | P<.001 |
| Type of Unit (first term wives) | 2 | 14.0 | P<.001 |
| Type of Unit (NCO wives) | 2 | 6.4 | P<.05 |
| Type of Unit (officers' wives) | 2 | 1.7 | N.S. |

TABLE 9

Cross-Rank Friendships Among COHORT and Non-COHORT Wives 1

| | TYPE OF UNIT | | |
|---------------------------------|--------------------|----------------------|---------------|
| | COHORT ROTATING | COHORT STATIONERY | NON COHORT |
| FIRST TERM WIVES (N=187) | | | |
| FRIENDLY WITH | | | |
| first term wives (%) | 92.6 | 90.6 | 88.7 |
| NCO wives (%) | 56.8 | 57.4 | 50.0 |
| officers' wives (%) | 22.1 | 34.0 | 19.6 |
| NCO WIVES (N= 289) | | | |
| FRIENDLY WITH | | | |
| first term wives (%) | 56.2 | 53.3 | 42.2 + |
| NCO wives (%) | 87.7 | 91.2 | 84.1 |
| Officers' wives (%) | 27.6 | 52.7 | 32.1 ** |
| OFFICERS' WIVES (N=143) | | | |
| FRIENDLY WITH | | | |
| first term wives (%) | 25.5 | 50.0 | 14.3 ** |
| NCO wives (%) | 49.1 | 75.0 | 30.6 *** |
| officers' wives (%) | 98.3 | 100.0 | 100.0 |

Levels of significance based on Chi Square Tests:

+ P=.10
 ** P<.01
 *** P<.001

1 Subjects referred to here comprise only those wives reporting friendships with other military wives in their husbands' units

Table 10

Correlations Among Study Variables

| | Stress | Unit Support | Family Support | Other Army Support | Civilian Support | Age | Education |
|--------------------|--------|--------------|----------------|--------------------|------------------|-------|-----------|
| General Well Being | -.09* | .19** | .26** | .15** | .15** | .11** | .20** |
| Stress | .02 | -.06 | -.02 | -.04 | -.07 | -.10 | |
| Unit Support | | .30** | .30** | .17** | -.11** | .13** | |
| Family Support | | | .21** | .40** | -.11** | .05 | |
| Other Army Support | | | | .18** | .10** | .13** | |
| Civilian Support | | | | | -.03 | .16** | |
| Age | | | | | | .14** | |

* P<.01 ** P<.001

Table 11
The Stress Buffering Effects of Different Types of Support
Among Army Wives (Based on Total Sample - N=1145)

| Type of Support | Variable | High Support | | | Low Support | | |
|--|-----------|--------------|---------|-----------|-------------|---------|-----------|
| | | B value | SE | Beta | B value | SE | Beta |
| Unit Wives | Stress | -0.01 | 0.02 | -.023 | -0.09 | 0.02 | -.157** |
| | Age | 0.18 | 0.14 | .052 | 0.47 | 0.17 | .135** |
| | Education | 4.38 | 0.87 | .209*** | 2.36 | 1.11 | .104* |
| | | N=550 | R2=.05 | F=9.8*** | N=415 | R2=.068 | F=10.0*** |
| Family | Stress | 0.02 | 0.02 | -.049 | -0.047 | 0.02 | -.087 |
| | Age | 0.39 | 0.13 | .129** | 0.15 | 0.18 | .039 |
| | Education | 3.57 | 0.87 | .176*** | 4.06 | 1.05 | .181*** |
| | | N= 525 | R2=.058 | F=10.8 | N=440 | R2=.05 | F=7.7*** |
| Non-Unit Army Wives | Stress | -0.04 | .02 | -.089* | -0.04 | .02 | -.078 |
| | Age | 0.17 | .15 | .049 | 0.37 | .15 | .090 |
| | Education | 4.11 | .95 | .188*** | 3.35 | 1.1 | .156** |
| | | N=506 | R2=.049 | F=8.8*** | N=459 | R2=.049 | F=7.9*** |
| Friends Not Associated With the Army | Stress | -0.04 | .02 | -.081 | -0.04 | .02 | -.079 |
| | Age | 0.38 | 0.14 | .114** | 0.14 | .17 | .04 |
| | Education | 3.71 | .92 | .172*** | 3.52 | 1.06 | .160** |
| | | N=532 | R2=.058 | F=10.8*** | N=433 | R2=.04 | F=6.0*** |

Note: Numbers do not add up to 1145 because cases with missing values are deleted from the regression model
* P<.05 ** P<.01 *** P<.001

TABLE 12
Zero Order Correlations Among Study Variables For Time 1 & 2 Respondents
(N=474)

| | UMS Type | Age | Self esteem | Mastery | Emotional Reliance | Support T ₁ | Support T ₂ | Group Activity | Months in Rank | Battalion UMS | T ₂ |
|------------------------|----------|------|-------------|---------|--------------------|------------------------|------------------------|----------------|----------------|---------------|----------------|
| Rank | 0 | .28 | .18 | .12 | -.14 | .15 | .06 | -.38 | -.04 | .66 | |
| UMS Type | | -.06 | .08 | -.08 | 0 | -.11 | .28 | .26 | -.23 | .75 | |
| Age | | | .10 | .04 | -.13 | -.13 | -.16 | -.01 | .01 | .29 | |
| Self Esteem | | | | .50 | -.31 | .09 | .10 | -.18 | 0 | .17 | |
| Mastery | | | | | -.39 | .09 | .10 | -.18 | .05 | .06 | |
| Emotional Reliance | | | | | | -.01 | .03 | .07 | 0 | -.08 | |
| Support T ₁ | | | | | | | .40 | -.30 | -.04 | .02 | |
| Support T ₂ | | | | | | | | -.43 | .15 | -.17 | |
| Group Activity | | | | | | | | | -.06 | -.01 | |
| Months in Battalion | | | | | | | | | | -.20 | |

All correlation coefficients equal to or greater than .10 are significant at the $p < .05$ level, or above.

TABLE 13

Partial Decomposition of the Effects of Independent Variables on Social Support at Time 2
Using Standardized Beta Weights

| Variable Name | Path Name | Beta Weight | standard error |
|-----------------------------------|-----------|-------------|----------------|
| Husband's Rank | P1 | -.111 | 0.279 |
| Unit Manning System Subtype | P2 | -.169 | 0.417 |
| Activity in Wives' Support Groups | P3 | .334 | 0.044 |
| Interaction Effect | P6 | .044 | .196 |
| Months in Battalion | P7 | .098 | .009 |

TABLE 14

Indirect Effects of Independent Variables on Social Support At Time 2

| Variable Name | Path Names | Beta Weights |
|-----------------------------|------------|--------------|
| Husbands' Rank | P3*P4 | .114 |
| TOTAL EFFECTS | (P3*P4)+P1 | .225 |
| Unit Manning System Subtype | P3*P5 | .112 |
| TOTAL EFFECTS | (P3*P5)+P2 | .281 |

TABLE 15

Correlations Among Study Variables for Junior Enlisted Couples
(N=127)

| | Wife's attitude to unit T2 | Soldier's morale T1 | Soldier's morale T3 | Army/ family inter- face T1 | Army/ family inter- face T3 |
|--------------------------------|-------------------------------------|---------------------------|---------------------------|---|---|
| Wife's attitude to unit T 2 | 1.0 | .17 | .32 | .22 | .47 |
| Soldier's morale T 1 | | 1.0 | .45 | .50 | .34 |
| Soldier's morale T 3 | | | 1.0 | .29 | .71 |
| Army/family interface T 1 | | | | 1.0 | .51 |
| Army/family Interface T 3 | | | | | 1.0 |

All correlations greater than .2 are significant at the p<.01 level. All correlations below .2 are non-significant

TABLE 16

Correlations Among Study Variables for NCO Couples
 N=157)

| | Wife's attitude to unit T 2 | Soldier's morale T 1 | Soldier's morale T 3 | Army/family interface T 1 | Army/family interface T 3 |
|--------------------------------|--------------------------------|-------------------------|-------------------------|------------------------------|------------------------------|
| Wife's attitude to unit T 2 | 1.0 | .09 | .35 | .21 | .35 |
| Soldier's morale T 1 | | 1.0 | .60 | .55 | .30 |
| Soldier's morale T 3 | | | 1.0 | .38 | .50 |
| Army/family interface T 1 | | | | 1.0 | .55 |
| Army/family interface T 3 | | | | | 1.0 |

All correlations below .2 are non-significant.
 Correlations between .2 and .3 are significant at the p<.05 level. Correlations greater than .3 are significant at the p<.01 level.

TABLE 17

Correlations Among Study Variables for Officer Couples
(N=42)

| | Wife's attitude to unit T 2 | Soldier's morale T 1 | Soldier's morale T 3 | Army/family interface T 1 | Army/family interface T 3 |
|--------------------------------|--------------------------------|-------------------------|-------------------------|------------------------------|------------------------------|
| Wife's attitude to unit T 2 | 1.0 | .06 | .26 | .13 | .06 |
| Soldier's morale T 1 | | 1.0 | .61 | .61 | .46 |
| Soldier's morale T 3 | | | 1.0 | .48 | .72 |
| Army/family interface T 1 | | | | 1.0 | .46 |
| Army/family interface T 3 | | | | | 1.0 |

All correlations greater than .4 are significant at the P<.01 level. Correlations below .3 are non-significant.

TABLE 18

Partial Decomposition of the Effects of Independent
 Variables on Morale(Time 3) Using Standardized
 Beta Weights

| Variable Name | Path Name | Effect NCO Couples | Effect Junior enlisted Couples | | |
|--------------------------------|--------------|-----------------------|--------------------------------------|----------------|----------------|
| Direct Effects | | | | | |
| | | Beta weight | Beta signif | Beta weight | Beta signif |
| Morale T 1 | P1 | .511 | p<.001 | .259 | P<.01 |
| A/F Interface T 3 | P2 | .255 | p<.01 | .616 | p<.001 |
| Wife's Attitude To Unit | P3 | .225 | P<.01 | -.012 | ns |
| Indirect Effects | | | | | |
| Wife's attitude to unit T 2 | P4 P2 | .059 | | .250 | |
| Total Effects | | | | | |
| Wife's attitude to unit T 2 | (P4 P2) + | | | | |
| | P3 | .284 | | .262 | |

TABLE 19
Standardized Beta Weights Obtained in Restricted Model Predicting
The Reciprocal Relationship Between Work and Family

| Dependent Variables | X5 | X6 | X7 | X9 | X10 | X11 | X112 | X13 |
|-----------------------|---------|---------|---------|----------|----------|----------|---------|----------|
| X1. Financial Sat | .345*** | .293*** | | | | | | |
| X2. Time Conflicts | | | .221*** | | | | | .160* |
| X3. Hours Worked | | | | | | | | |
| X4. Emot Climate | | .470*** | .349*** | | | | | |
| X5. Personal Morale | | | | -.367*** | | | | |
| X6. Hus Work/Fam | | | | | -.329*** | | | |
| X7. Hus Armyout | | | | | | .163* | | |
| X8. Predict Sched | | | | | | -.426*** | | |
| X9. Schedule Sat | | | | | | | .406*** | .333*** |
| X10. Leader Sat | | | | | | | .294*** | |
| X11. Wife work/Fam | | | | | | | | -.513*** |
| X12. Wife getout | | | | | | | | -.213*** |
| X14. Race | | | | | | | | -.164* |
| X15. Rank | | | | .155* | | | | .199** |
| X16. Wife Marital Sat | | | | | | | | .244*** |
| Adjusted R Square | .462 | .462 | .353 | | .220 | .157 | .441 | .432 |
| * | P<.05 | ** | P<.01 | | *** | P<.001 | | 217 |

FIGURE 1
Path Model Showing Relationship of Life Domains and Employment Variables to GWB

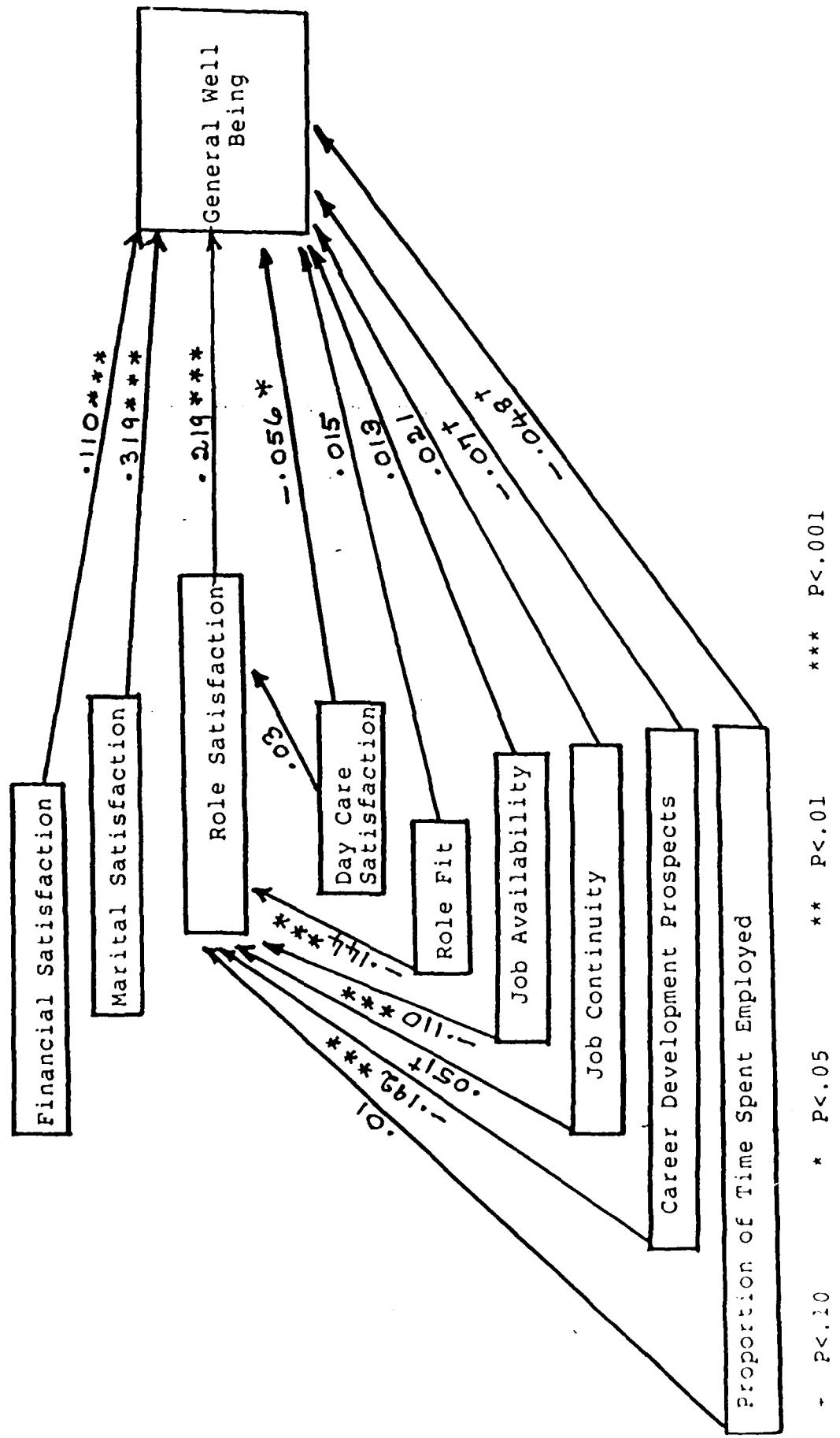


FIGURE 2

PATH ANALYTIC MODEL SHOWING DIRECT EFFECTS OF INDEPENDENT VARIABLES ON SOCIAL SUPPORT AT TIME 2 USING STANDARDIZED BETA WEIGHTS

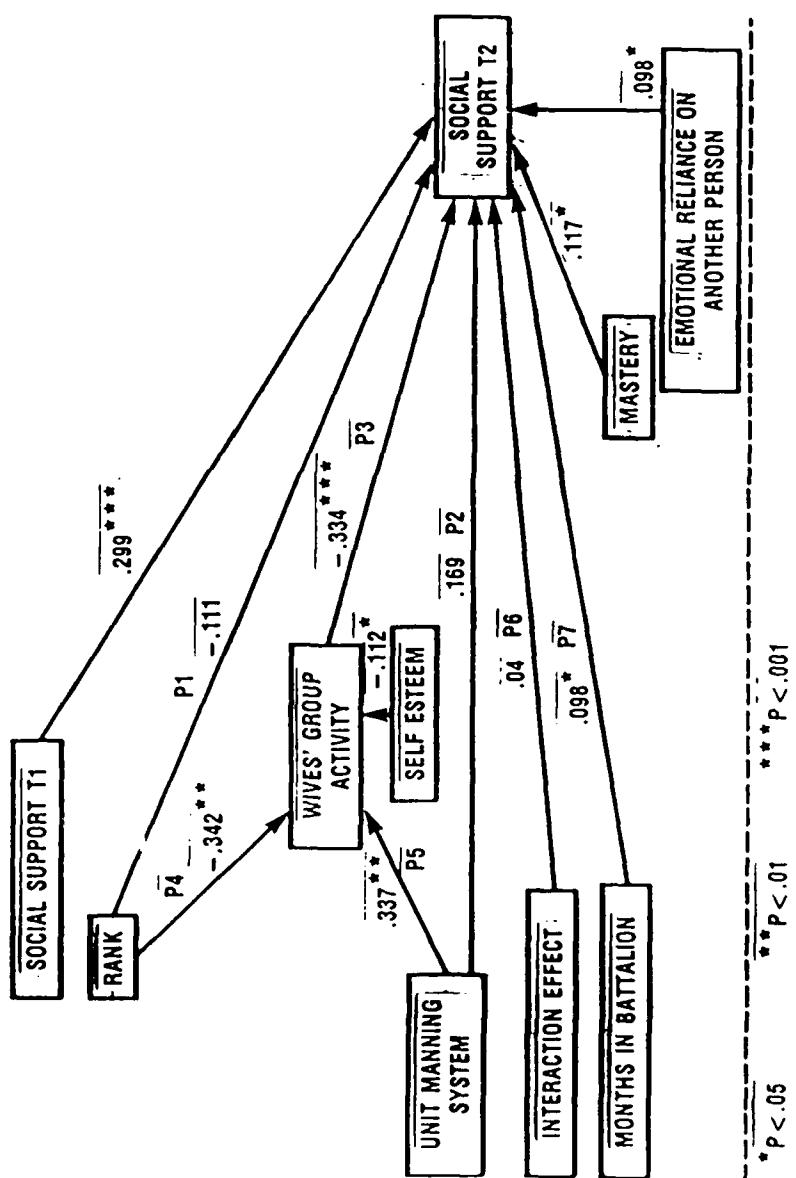
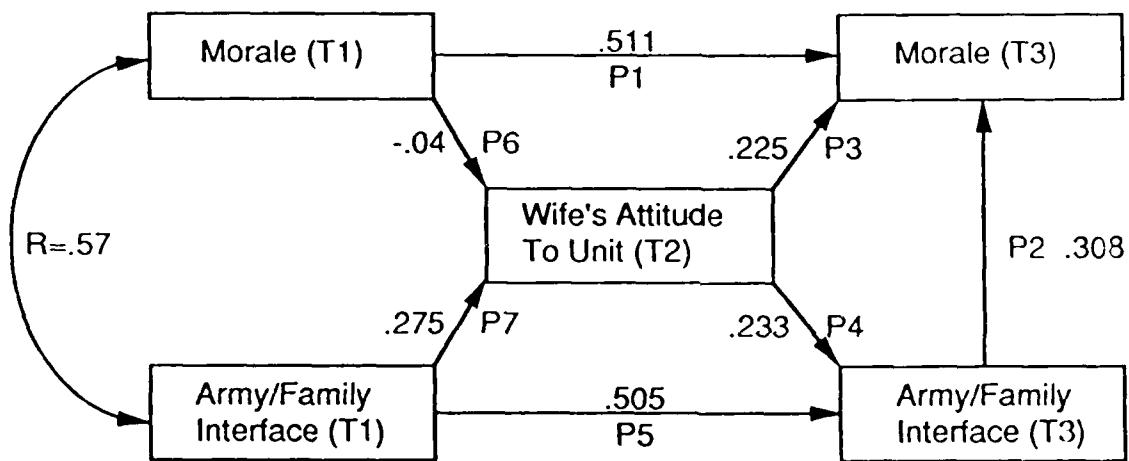
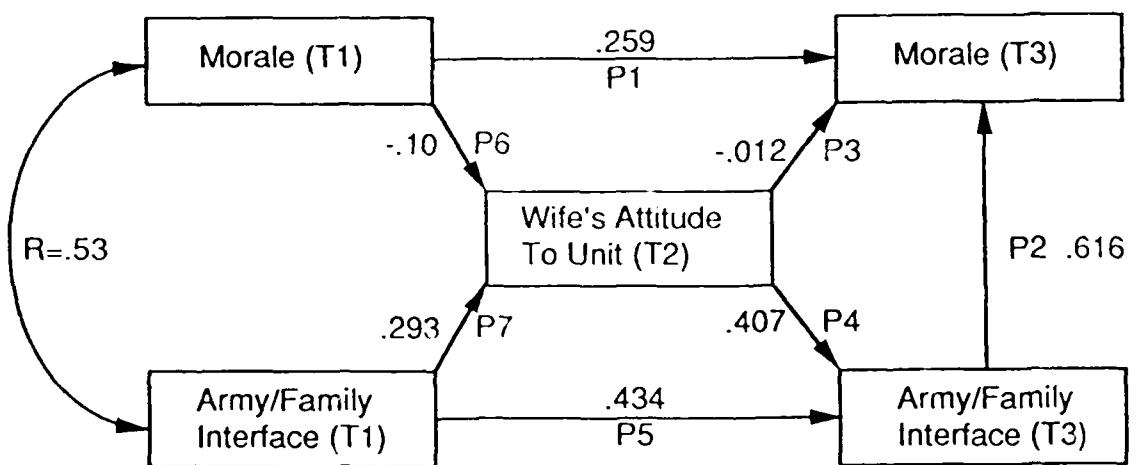


FIGURE 3
Path Analytic Model With Direct Effects for NCO Couples



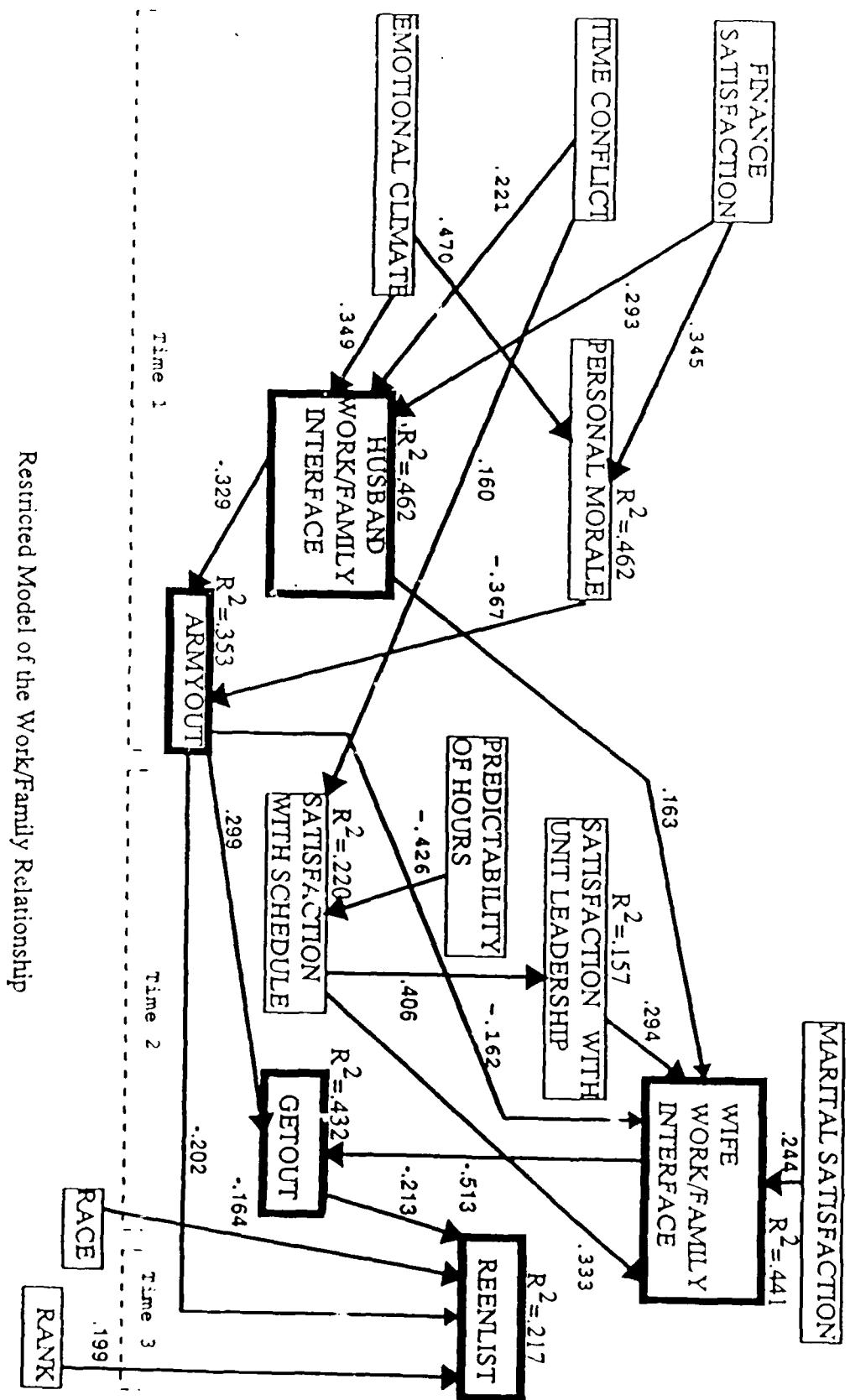
Paths shown are based on standardized beta weights.

FIGURE 4
Path Analytic Model With Direct Effects
for Junior Enlisted Couples



Paths shown are based on standardized beta weights.

FIGURE 5



Restricted Model of the Work/Family Relationship